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YEAR THIS DEGREE GRANTED 1973

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THE RELATIONSHIPS BETWEEN TEACHER PERSONALITY, TEACHER BELIEFS, AND THE IMPLICIT CURRICULUM

by

© IRENE FRANCES MACDONALD

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled

THE RELATIONSHIPS BETWEEN TEACHER PERSONALITY, TEACHER BELIEFS, AND THE IMPLICIT CURRICULUM

submitted by Irene Frances MacDonald in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

The study investigated the relationships between measures of teacher personality, teacher beliefs about the teaching process, and style of classroom organization and pupil control as perceived by supervisors, by the teachers themselves, and by their pupils. Inferences were drawn from these relationships regarding the implicit curriculum associated with an authoritarian style of classroom control.

Personality and belief measures were obtained from 30 teachers in the Edmonton Catholic School System. Perceptions regarding the teachers' style of classroom organization and pupil control were gathered from 3 supervisors, and from 300 pupils drawn from the classes of these teachers, as well as from the teachers themselves. Canonical correlations and first order correlations were established between the three main areas (personality, beliefs about the teaching process, and style of classroom organization and pupil control). Relationships between the three sources of perceptions of the teachers' classroom behavior (supervisors' opinions, teachers' self-ratings, and pupils' perceptions) were analysed using the same procedures.

Highly significant relationships were found between teacher personality and teacher beliefs about the teaching process. Teachers high or low in authoritarian personality

characteristics were found to have correspondingly high or low degrees of authoritarianism in their beliefs about the teaching process. Furthermore, teachers having high scores on authoritarian personality variables were perceived by their supervisors as less flexible in their style of classroom organization and pupil control than teachers with nonauthoritarian personalities. While no significant canonical correlations were found between authoritarian personality variables in teachers and their classroom behavior as perceived by the teachers themselves or by their pupils, there were, however, a number of significant first order correlations between individual personality variables and teachers' and pupils' perceptions of the teachers' classroom behavior. Teachers' beliefs about the teaching process were not found to be related to their style of classroom organization and pupil control as perceived by the supervisors, the teachers themselves, or by their pupils. While pupil perceptions were found to be significantly related to those of both supervisors and teachers, there were no significant overall relationships between the perceptions of the supervisors and those of the teachers concerning style of classroom organization and pupil control.

Inferences drawn concerning the implicit curriculum associated with an authoritarian style of classroom control indicated that while teachers and pupils alike are

unclear regarding the degree to which consideration of pupils' rights, encouragement of pupil autonomy, and teacher flexibility are exercised in the classroom, there is, however, significant agreement about who is in charge and what is expected of the pupils in terms of obedience to the rule structure of the classroom. Findings also suggested an implicit belief by both teachers and pupils that pupils' rights are conferred by the individual teacher, rather than predicated upon universal principles.

The study revealed a need for further research in the area of the implicit curriculum and its effects upon children, particularly in regard to values education. The need for the development of instruments for this purpose was also indicated.

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CHAPTER I

Introduction

Background to the study

In recent decades, a vast amount of research has been devoted to teacher personality and classroom climate, with the emphasis upon teacher effectiveness measured in terms of pupil achievement (Flanders and Simon, 1969; Gage, 1963). Rather than focusing upon the relationships of teacher personality to achievement, this study investigated the relations between personality, teacher beliefs, and style of classroom organization and control.

Rationale for the study

Teacher personality, teacher effectiveness, and pupil achievement have been studied for their importance in relation to the explicit curriculum of schools. Educators, however, are also concerned about what is implicitly taught in schools (Biber and Minuchin, 1970; Biggs, in press; Dreeben, 1970; Friedenberg, 1964, 1970; Freire, 1969, 1970, 1971; Getzels, 1969; Illich, 1970; Kohlberg, 1970; Jackson, 1968, 1970; Overly, 1970; Rosenthal, 1970; Silberman, C., 1970; Silberman, M., 1971; Toffler, 1970), and the relationship between the implicit curriculum and the personality of the teacher (Biber and Minuchin, 1970; Minuchin, Biber, Shapiro, and

Zimiles, 1969; McGee, 1955). One aspect of personality which has been intensely studied is authoritarianism. According to Adorno (1950), Maslow (1943), and Rokeach (1960), personalities characterized by authoritarianism view the world differently from nonauthoritarian personalities. This world view, which includes attitudes about the nature of man, and about dominance and submission, is characterized by a closed system of beliefs about man and society. Consequently, it is to be expected that the beliefs about the teaching process and the style of classroom organization and pupil control of teachers high in authoritarian characteristics will differ significantly from those of teachers low in these characteristics. It is also to be expected that such beliefs and values will be communicated implicitly to the pupils through the style of classroom organization and pupil control, thus becoming part of what has been described as the implicit curriculum (Jackson, 1968, 1970).

Statement of the problem

The purpose of this study was to examine the relationships between the personality of teachers, their beliefs about the teaching process, and their style of classroom control, and to draw inferences from these relationships regarding the implicit curriculum associated with an authoritarian style of classroom organization and pupil control.

To achieve this, it was necessary to obtain measures of several personality variables associated with authoritarianism, measures of beliefs about the teaching process, as well as perceptions of supervisors, teachers, and pupils regarding the teachers' style of classroom control.

Specifically, the problem was posed in terms of the following questions:

Are there significant relationships between authoritarianism in teacher personality and teachers' beliefs about the teaching process?

Are there significant relationships between authoritarianism in teacher personality and style of classroom organization and pupil control as perceived by:

1. supervisors?
2. the teachers themselves?
3. the pupils?

Are there significant relationships between teacher beliefs about the teaching process and style of classroom organization and pupil control as perceived by:

1. supervisors?
2. the teachers themselves?
3. the pupils?

What inferences may be drawn from these findings regarding an implicit curriculum associated with authoritarianism?

Definition of terms

The terms used in this study are defined as follows:

Personality: a more or less enduring organization of forces within the individual. These persisting forces of personality help to determine response in various situations, and it is thus largely to them that consistency of behavior - whether verbal or physical - is attributable (Adorno et al., 1950, p.5).

Authoritarianism: a personality trait characterized by a mental set which considers authority as absolute and which accepts or rejects other individuals because they agree or disagree with one's belief-disbelief system (Adorno et al., 1950; Rokeach, 1960).

Belief system: an interrelated organization of inferences made by an observer about underlying states of expectancy.

Each and every one of a person's countless beliefs about physical and social reality are represented in some organized but not necessarily logical form within his belief system (Rokeach, 1969, p.2).

Implicit Curriculum: a system of beliefs and values which is communicated tacitly through such means as school philosophy, administrative practices, and the system of expectations and rewards of the school.

The implicit curriculum is understood in contrast to the explicit curriculum which is a system of beliefs and values communicated as a defined objective through the school's program of studies.

According to the theoretical framework of the study, authoritarianism and nonauthoritarianism would each be expected to have a distinctive implicit curriculum. This study, however, emphasized only the implicit curriculum associated with authoritarianism.

The medium of the implicit curriculum emphasized in the study was the organization and rule structure of the classroom (style of classroom organization and pupil control).

Definitions of variables associated with authoritarianism which are measured in this study will be given as the scales are introduced.

Significance of the study

Previous studies have established that classroom climate has an effect upon pupils' attitudes, behavior, and achievement (Flanders and Simon, 1969; Gage, 1963; Minuchin et al., 1969), and that classroom climate is related to teacher personality (Anderson, 1946; Clouser and Hjelle, 1970; McGee, 1955; Piers, 1955; Sheldon, Coale, and Copple, 1959). In addition, it has been shown that teacher personality and teacher beliefs are related (Laury, 1972; Janzen, Beeken, and Hritzuk, 1973). The

present study is significant in examining the interrelationships between all three dimensions (teacher personality, teacher beliefs, and classroom climate), and in inferring an implicit curriculum associated with authoritarianism from these relationships.

While the majority of studies have emphasized the emotional dimensions of classroom climate in its effect upon pupils' attitudes and behavior, this study is concerned specifically with the rule structure of the classroom as an aspect of that climate. Should the findings indicate a relationship between the personality of the teacher and the quality of classroom climate as a result of its rule structure, this study would highlight the importance of the teacher's personality in relation to the rule structure and its impact upon the learning of attitudes and behaviors in the pupils.

Should the relationships between perceptions of the style of classroom control of the authoritarian teacher suggest a different implicit curriculum from that of the nonauthoritarian teacher, the study would emphasize the importance of authoritarianism in teacher personality and its associated implicit curriculum.

Should results of the study indicate a relationship between the teachers' beliefs about the teaching process and style of classroom control, the study would indicate the impact of the teachers' beliefs about the

teaching process upon classroom climate.

Should pupils' perceptions differ significantly from those of teachers and supervisors, the study would indicate the importance of pupils' perceptions of the rule structure of the classroom.

Most studies of classroom climate use observational techniques (Getzels and Jackson, 1963; Medley and Mitzel, 1963). The present study attempted to use supervisors' opinions, teachers' self-ratings and pupils' perceptions as means of obtaining information about classroom climate. Consequently, it should yield some information about the value of these sources of data.

CHAPTER II

Review of the Related Literature

In order to provide an overview of related literature, the following areas have been examined:

Theoretical

(a) Authoritarianism as a dimension of personality, associated with a personal belief system.

(b) Authoritarian belief systems as communicated implicitly through school procedures

Empirical

(c) Methods in the study of classroom climate.

(d) Classroom climate as a function of teacher personality and beliefs.

(e) Indications that classroom climate communicates an implicit curriculum.

(f) Effects of the implicit curriculum upon children.

Authoritarianism as a dimension of personality, associated with a personal system of belief

The understanding of authoritarianism accepted in this study has grown out of the theoretical framework provided by Maslow (1943). Locating his theory in a psycho-social framework, Maslow stated that the world view of the authoritarian individual is characterised by a negative view of the nature of man. Because man is seen as essentially evil, the world is viewed as a dangerous place in which all persons having a scale of values

different from one's own are considered threatening. Protection from such enemies is assured by seizing power and exercising it in an autocratic manner. Authoritarian persons have a strong tendency to judge by externals and to adopt generalized concepts of superiority and inferiority. Consequently, they hold a view of group interaction in which "superior" persons are deferred to and "inferior" persons are kept under rigid control. Since change of the status quo is regarded as threatening, the authoritarian individual adopts a rigid mental set, resists change, and champions conservativism. Protective structures are thereby maintained in a potentially threatening environment. For Maslow, the authoritarian individual's negative view of the nature of man, his resistance to change, and his autocratic use of power reveal him as fearful and insecure.

The concept of the authoritarian individual as fearful was supported by Adorno et al. (1950). Their studies revealed common underlying needs and a common ideology distinguishing authoritarian from nonauthoritarian individuals. These needs include fear of being overwhelmed, desire to erect social barriers in order to maintain ingroup morality and control, and an extreme concern with dominance and power. Associated with these needs is a common ideology, understood as an "organization of opinions, attitudes, and values - a way of

thinking about man and society" (Adorno et al., p.2), which results in stereotyped thinking and rigid adherence to specific social class values.

Rokeach (1948, 1960) described this understanding of authoritarian ideology as a closed way of thinking and an intolerance towards those with opposing beliefs;

> To say that a person is dogmatic, or that his belief system is closed, is to say something about the way he believes and the way he thinks - not only about single issues, but also about networks of issues (Rokeach, 1960, p.5)

The rigid belief system of the authoritarian individual makes him resistant to change, intolerant of ambiguity, and with greater tendency to premature closure.

The literature on the authoritarian personality structure may be summarized as follows. The authoritarian individual's negative view of the nature of man results in feelings of insecurity and fearfulness. The individual attempts to overcome these feelings by adopting a hierarchical view of group interaction which regards authority as absolute, and a rigid mental set characterized by stereotyped thinking and an "either-or" attitude towards reality. Such a view of group interaction obtains the protection of those in authority and at the same time provides control over those beneath by rendering them dependent upon one's own wishes and decisions. The characteristic of rigidity finds expression in an intolerance of ambiguity, which eliminates alternate or

pluralistic points of view, and in a highly structured existence in which all details are ordered and brought under control. The same rigidity is expressed in a conservativism which opposes change and supports the present order as a further means of protecting oneself against the threatening factors in the environment.

The authoritarian personality structure may be conceptualized as shown in Figure 1.

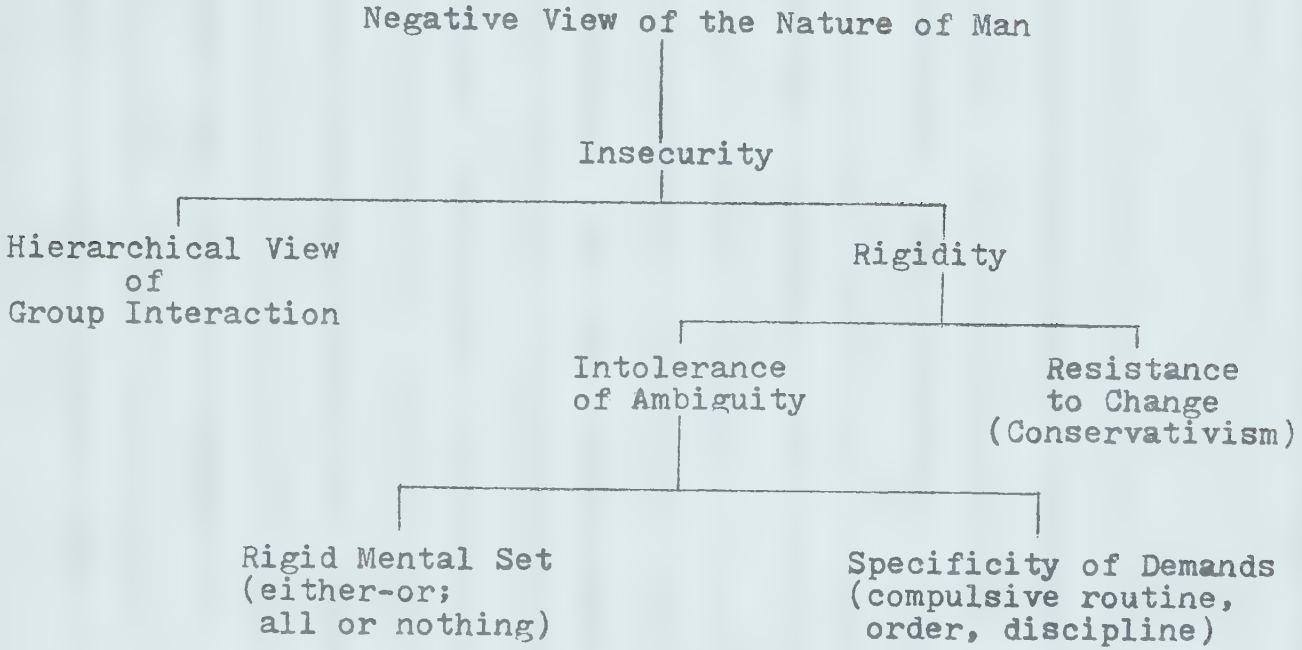
Applied to the classroom, this conceptualization would suggest that the authoritarian teacher would establish a style of rule structure in the classroom which is different from that of a nonauthoritarian teacher. It is also to be expected that the belief system of the authoritarian personality will be communicated implicitly to the pupils through the style of classroom organization and pupil control.

Authoritarian belief system as communicated implicitly through school procedures

A number of educators have stressed the importance of the organizational procedures of the school, its philosophy and expectations as means of implicitly communicating a system of beliefs and values. Silberman (1970) stated that"attitudes and values are shaped far more by the so-called invisible or informal curriculum than by the formal curriculum" (p.469). Jackson (1968, 1971), who is

FIGURE 1

DIMENSIONS OF AUTHORITARIANISM



credited with the phrases both "hidden curriculum" and "unstudied curriculum" to refer to ninety percent of what goes on in classrooms, used the expressions to describe the totality of rules, regulations, and routines which have a profound impact upon the learning and personalities of students.

The kind of philosophy or belief system behind school procedures determines the values communicated implicitly. Of interest here is the communication resulting from authoritarianism. The presentation of specific class values through an authoritarian style of schooling has been well documented. Kohlberg (1970) stated that the implicit curriculum currently reflects the goals and social order of the school itself rather than the personal development of students. The value system communicated in schools has been described as socialization into a mass society of banality, mediocrity, and conformity (Friedenberg, 1964, 1970), and as a means of creating and maintaining a consumer society (Illich, 1970). Many structures and styles within the present educational system saturate young people with the aggression--competition--success system of the current culture (Biggs in press), and implicitly teach the values which produce "industrial man" (Toffler, 1970).

Educators have drawn attention to specific structures and styles by which an implicit curriculum is

communicated. The power of elements of the informal curriculum, such as rules, routines, and regulations (Jackson, 1968, 1971), seating arrangements, age segregation, the authority of teachers, even the school bell, in transmitting values by sending unspoken messages to students, shaping their attitudes and outlook has been stressed (Toffler, 1970). C.Silberman (1970) asserted that the attitudes and values of students are shaped by the manner in which the faculty members treat students, respond to error, and encourage students to assume responsibility, by their attitudes towards teaching and research, and by the school's system of status and rewards.

Other educationists maintained that the implicit curriculum is communicated through inconsistent or contradictory teacher behavior (Koff and Warren, 1971); implicit social and emotional demands made upon students (Brenner, Hofmann, and Weddington, 1971); varying sets of teacher and peer group expectations (Rosenthal, 1970); and through evaluation procedures which define progress in norm-referenced rather than criterion-referenced terms (Biggs, 1972). Bloom (1971) raised issues concerning the function of evaluation to implicitly teach each student who he is in relation to others, rather than how he performs in relation to the task itself or to his own previous performance.

Still others perceived the communication of an implicit curriculum through such informal structures as teaching styles and student sub-cultures (Getzels, 1969); through the organizational and administrative dimensions of school (Dreeben, 1970); and through school philosophy and practice, especially as these apply to modern as versus traditional types of schools (Minuchin et al., 1969).

Freire (1969, 1970, 1971) stressed that the very language of instruction carries an ideology and that schools implicitly teach the belief and value system of the dominant ruling class.

M.Silberman (1971) argued that the rules, routines and procedures of schools designed to mould individual behavior to the requirements of institutional living are typically presented as moral imperatives rather than as functional procedures, thus implicitly identifying morality with conformity. According to Kohlberg (1970), it is the moral character of the teachers and principal as these are translated into a working social atmosphere, which influences the environment of the children. This working social atmosphere, whether authoritarian or nonauthoritarian, is what researchers have referred to as classroom climate.

Methods in the study of classroom climate

The term classroom climate refers to the "generalized attitudes toward the teacher and the class that the

pupils share in common in spite of individual differences" (Flanders, 1963, p.38). Different operational definitions and dimensions for the term have been used in different studies, such as dominative-integrative (Anderson, Brewer, and Reed, 1946), teacher-centeredness versus learner-centeredness (Whitall, 1949), hostile-supportive influence (Medley and Mitzel, 1963), direct-indirect influence (Amidon and Flanders, 1967). However, all these refer to "highly similar, even identical dimensions of behavior, reliably measured, and important in educational theory" (Medley and Mitzel, 1963, p.274).

Lewin, Lippitt, and White (1939) used observation methods in their studies of the interaction between different styles of leadership and the behavior of 10-year old boys in work clubs. The observations carried out by Anderson et al.(1946) on teacher-child contacts used two main categories, namely, dominant and integrative. Sub-classifications were made according to whether or not evidence of conflict or working together was observed. An overall score was used, called the I-D Index, the ratio of the total number of integrative contacts by a teacher to her total number of dominative ones.

Withall (1949) renamed classroom climate "Social Emotional Climate" and suggested that it be measured in terms of teacher behavior alone. Using recordings of teacher statements, he devised a coding system by which

statements could be categorized along a continuum from learned-centeredness to teacher-centeredness. The ratio of the learner-centered statements to the total was called the Climate Index. Using variations of the Withall technique, Medley and Mitzel (1958 b) classified teachers' expressive non-verbal behavior as hostile and supportive. The reliabilities of these categories were .81 and .97 respectively, indicating that contrary to expectations, such behaviors could be classified more reliably than teacher statements. Medley and Mitzel combined their Manifest Teacher Hostility Scale and Supportive Teacher Behavior Scale into a dimension called Emotional Climate. It is interesting to note that this technique required twelve observers and up to twelve visits to raise the reliability from .47 to .92 (Medley and Mitzel, 1958 a). Without restricting themselves to verbal behavior, Hughes and associates (1959) developed a comprehensive set of categories for classifying teacher behavior, also similar to Withall's. Although their findings have been criticized by Medley and Mitzel (1963) because of the small sample and number of observations involved, Hughes reported that teachers' behaviors are stable through time.

Cogan (1956) developed a pencil-and-paper instrument to assess student perceptions of their teachers in terms of the teacher's ability to arouse interest, to

secure the involvement of his pupils, to motivate them. On the basis of pupil perceptions, the teachers were grouped as dominative, aggressive, and rejectant, or as integrative, affiliative, and nurturant. The underlying rationale was that the way pupils perceive the teacher's behavior leads to certain predictable behavior by the pupils.

Flanders (1960) developed a technique for measuring classroom climate in which ten categories were used. Of these, seven dealt with teacher talk, with sub-classifications for indirect influence and direct influence; two categories dealt with student talk, and one final category was used to describe periods of silence or confusion. A particular value of Flanders' technique was its preservation of a certain amount of information regarding the sequence of behavior.

Classroom climate as a function of teacher personality and beliefs

Using such methods, the major studies on classroom climate have focused upon the relationship between classroom climate, teacher effectiveness, and pupil achievement. Since, however, classroom climate is the result of teacher behavior, and behavior can be expected to be functionally related to personality, it is of interest in this study to review especially those which have sought to find the relationship between teacher

personality, beliefs, and classroom climate.

Withall (1949) raised the question of the extent to which the climate in a given classroom is a function of the personality of the teacher. Anderson et al. (1946) showed that classrooms differed markedly in the kinds of interactions that most commonly occur, and that the I-D Index is related to some characteristic of the teacher's personality. Co-ordinating data from recent studies, Cohen (1972) showed that over 74% of the 300 teachers questioned agreed that the personality characteristics of a teacher are more important than particular knowledge or skill in determining success in teaching.

Coates (1970) attempted to identify the personality characteristics that account for students' perceptions of teacher effectiveness. Factor analysis of 42,000 responses to the Teacher Image Questionnaire by students in Grades 7 to 12 revealed a single ill-defined factor, which the experimenter labelled "teacher charisma", accounting for 61.5% of the variance in test items, with five other factors accounting for the balance. Shaver and Richards (1971) correlated three personality measures of open- and closed- mindedness in teachers with student ratings on the instructors, and with achievements of students in the course. Scores on personality measures showed no consistent relationships with the ratings of the instructor, nor with the achievement of students.

Commenting on such attempts to find predictors of teacher effectiveness from measures of teacher personality, Flanders and Simon (1969) cautioned that these attempts are not likely to be rewarding, since they disregard the analysis of teacher-pupil interaction.

In fact, however, a number of studies have been successful in identifying a relationship between teacher personality, teacher beliefs, and classroom climate. Piers (1955) reported significant correlations between authoritarian personality types and authoritarian tendencies in teacher-pupil relationships, and between the more liberal or democratic personality types and more permissive tendencies. Using Adorno's (1950) theoretical framework, McGee (1955) found an overall correlation of .58 between scores on the F Scale and observation measures of teachers' overt authoritarian behavior in the classroom. Sheldon et al. (1959) found that high scores on "warm teacher scales" (affiliation, nurturance, succorance...) correlated significantly with low scores on authoritarianism as measured by the F Scale.

Laury (1972) investigated the relationship between personality characteristics of teachers and their philosophies of education and found that relationships did exist.

In order to compare relationships between teacher beliefs and the Internal-External dimension of personality,

Janzen et al. (1973) administered Wehling and Charters' Teacher Belief Questionnaire and Rotter's I-E Scale to 80 teachers. As expected, they found that high scores on belief in Classroom Order and Subject Matter Emphasis correlated with a high score on Externality. Contrary to expectations, belief in Student Autonomy, Integrative Learning, and Personal Adjustment Ideology also correlated with Externality.

Indications that classroom climate communicates an implicit curriculum

While the preceding studies gave an indication of a functional relationship between teacher personality and classroom climate, other studies have indicated results from which the existence of an implicit curriculum might well be inferred. For instance, in their analysis of recordings of 15 classes from Grades 10 and 12, involving 15 teachers and 345 students, Bellack, Kliebard, Hyman, and Smith (1966) found that 85% of the patterns of interaction were teacher initiated, and concluded that the characteristic teaching pattern in high school classes was teacher soliciting - pupil responding - teacher reacting. The data revealed that 50% to 60% of classroom discourse was related to fact-stating and explaining, with analysis and evaluation accounting for only a small percentage of the entire classroom discourse. Pupils' solicitations usually concerned instructional

procedures.

These findings were supported by Flanders (1970) who interpreted data reported in other studies (Flanders 1964; Pankratz, 1967) to show the predominant pattern of classroom interaction in high schools. While 88% of all teaching cycles or events were consistently teacher initiated, the percentage of all classroom talk devoted to teacher reactions to and making use of pupil ideas was as low as 4% in junior high. Rather than increasing in senior high, as would be expected, results showed even less use of pupils' ideas at the senior level.

In regard to teacher and student questions, Flanders noted that an analysis of data from various researchers over a ten-year period (1960 -1970) revealed the following: questions by teachers drop from 16% of all teacher talk in the primary grades to 6% in senior high, with two-thirds of these concerned with narrow lines of interrogation which stimulate an expected response. Questions asked by pupils range from 1 - 3 or 4% of all talk, with over 80% of these being requests for clarification and direction.

These findings, both in secondary and elementary schools, indicate a style of teacher-pupil interaction from which might well be inferred an implicit curriculum in which passivity is given priority over initiative;

sitting and listening over defining, verifying, questioning, reflecting, and evaluating; and following direction and remembering facts are preferred to the development of self-direction and the skills of inquiry.

A further illustration may be cited. Category 1 of Flanders' Interaction Analysis Categories, which measures acceptance of pupil feelings, accounted for less than one percent of tallies in all categories in all grades and subject matters in an observational study carried out by Furst and Amidon (1967). In only three lessons did the total reach half of one percent, and in each case the teacher involved admitted to a philosophy which stressed acceptance of feelings as basic to the teaching-learning process. Similarly, Pankratz (1967) in an analysis of verbal behavior of 10 high school teachers found that the category of accepting feelings was the least used of all categories. Here again, one seems justified in inferring an implicit curriculum which devalues emotion, and in which the control, expression, and use of feelings is given little importance.

These findings illustrate the concept of an implicit curriculum which can be inferred from classroom interactions. The effect of such a curriculum has been the focus of a series of studies.

Effects of the implicit curriculum on children

Lewin, Lippitt, and White (1939) studied the effects of democratic, autocratic, and laissez-faire leadership roles upon ten-year olds in a number of boys' clubs. They found that aggressive behavior was either very high or very low under authoritarian conditions, extremely high under laissez-faire conditions, and intermediate under democratic conditions. Productive behavior was higher than or as high in authoritarian climates when the leader was present, as in democratic climates, but much lower when the leader was absent, moderately high and independent of the leader's presence or absence in the democratic climates, and lowest in the laissez-faire climates. Size, cohesiveness, communications, composition, and style of leadership were all found to be relevant factors in group behavior and performance by Hare (1962).

Studying the effects of teacher expectations on pupils, Rosenthal (1970) showed that behavior and performance (including I.Q. scores)improved significantly where teachers were led to expect improvement. It was also found that children who achieved contrary to the teacher's expectations, tended to be rated less favourably by the teacher on personal qualities, such as adjustment, attractiveness, and co-operation. Leacock (1969) and Levy (1970) concluded from their studies of urban schools

that in many classrooms with low-income children, the primary objective of the teacher is the socialization of obedience behavior, rather than any type of substantive learning. Similarly, Henry (1957) showed that the teacher's need for acceptance by her children and her fear of inability to control free discussion often resulted in her forcing children into uncritical docility by which they seek her approval. Honest feeling and originality are stamped out in the elementary school by the atmosphere of rivalry which is at once stimulated and feared by the teacher herself.

In contrast to these studies which emphasised socialization to conformity, Jackson (1968) observed the power of the implicit curriculum to create conflict in students; at times they were expected to be passive and conforming; then, upon cue, they were expected to become intellectually curious and aggressive. He concluded that the frequent outcome is to falsify both behaviors, feigning interest in some instances and conformity in others - according to the requirements of the moment.

Coleman (1961) pointed out that the student subculture has a direct impact on student output. When the student culture devalues academic achievement, individual students are deterred from striving for good grades. Evidence of two sets of expectations in the school culture were found by Gordon (1957): those deriving from

the formal structure of the school itself and those deriving from peer-group pressures. The expectations of the student sub-culture were seen to be the dominant motivation. Where the two sets of expectations came into conflict, the students frequently re-defined the meaning and value of the formal expectations. The resultant stress upon the classroom teacher often forced the teacher to adjust the situation in order to protect his own personality.

Of major importance in the analysis of the implicit curriculum is the study conducted by Biber, Minuchin and associates (Biber and Minuchin, 1970; Minuchin et al., 1969), who reported significant effects of school philosophy and practice on the attitudes and self-image of children. Four schools were selected which represented variations in educational philosophy and method, ranging along a continuum of modern to traditional ideology and practice. Distinctions between traditional and modern orientations were made on the basis of task definition, intellectual growth, pedagogy, evaluation, discipline, and teacher role. Since they wished to include a private school in this study, it was necessary to match it with three other schools mainly populated by children from middle and upper-middle class homes. Fourth-grade children were chosen since the researchers wanted to study children who had some cumulative effects

of schooling, but would not present the psychological complications of adolescence.

Using standardized sentence completion tests, interviews, and simulated dilemma situations, the researchers attempted to compare the children's conceptions of school authority, their developing codes and judgments concerning right and wrong, and such aspects of self-image as self-differentiation, images of life stages, and social sex roles. Using their responses to the Sentence Completion Test concerning attitudes towards school authority, the researchers categorized the children as rebellious, resentful, conforming, or rational. It was found that the children from the most fully "modern" school orientation were the most free from resentment and conformity; they were also the most rational and objective in their attitudes and did not see the authority structure of the school as threatening.

Children from traditional schools responded to the questions about right and wrong, fairness and justice, with more consistent referral to the rules, regulations, and infractions of the school world, and showed greater concern with the punitive consequences that followed misconduct. Children from the modern schools evidenced more attempts at forging generalized principles which transcended adult demands in the school setting.

The self-image of children from the modern schools showed significantly greater self-differentiation, and included a greater range of qualities, touching more frequently on feelings, plans, and memories, rather than simply descriptive accounts of their activities.

Children from traditional schools lived much more in the future than in the present; they looked upon the future as a time of independence, accomplishment, and satisfaction, and generally preferred adolescence and adulthood to their present life stages. Their concept of life roles evidenced much more conventionality than did those of the modern school children. These latter were more apt to project present interests into future careers and their fantasy lives were oriented more to the present than to the future.

Children from the traditional schools, especially the boys, expressed greater allegiance to the advantages of their own sex, and tended to have more conventional images of role behavior as related to sex. Children from the modern schools showed less tendency to identify with the usual role conception; the girls especially were less likely to typify the family-centered interests and concerns traditionally expected of girls. The researchers warned, however, that the influences of the home in fostering these differences must be kept carefully in mind.

Conclusion

The literature reviewed suggested that a system of beliefs is associated with authoritarianism, that this belief system finds expression in the style of classroom organization and pupil control of the authoritarian teacher, and that this belief system is communicated to the pupils through the rule structure of the classroom, thus allowing an implicit curriculum associated with authoritarianism to be inferred.

Hypotheses

The literature reviewed provided the background to the specific questions posed in the study. In order to answer these, the following hypotheses were formulated:

1. There are no significant correlations between measures of authoritarianism in teacher personality and measures of beliefs about the teaching process obtained on selected scales.

It was expected that hypothesis 1 would be rejected, and significant correlations established between teacher personality and beliefs.

2. There are no significant correlations between measures of authoritarianism in teacher personality and supervisors' opinions regarding degree of authoritarianism in teachers' style of classroom organization and pupil control as measured on a 5-point scale.

It was expected that hypothesis 2 would be rejected, and significant correlations established between teacher personality and supervisors' opinions.

3. There are no significant correlations between measures of authoritarianism in teacher personality and teachers' self-ratings on style of classroom organization and pupil control

It was expected that hypothesis 3 would be rejected and significant correlations established between teacher personality and teacher self-ratings.

4. There are no significant correlations between measures of authoritarianism in teacher personality and measures of pupils' perceptions of the teachers' style of classroom organization and pupil control.

It was expected that hypothesis 4 would be rejected and significant correlations established between teacher personality and pupil perceptions.

5. There are no significant correlations between measures of teachers' beliefs about the teaching process and supervisors' opinions regarding degree of authoritarianism in the teachers' style of classroom organization and pupil control.

It was expected that hypothesis 5 would be rejected and significant correlations established between teacher beliefs and supervisors' opinions.

6. There are no significant correlations between measures of teachers' beliefs about the teaching process and teachers' self-ratings on style of classroom organization and pupil control.

It was expected that hypothesis 6 would be rejected and significant correlations established between teacher beliefs and teacher self-ratings.

7. There are no significant correlations between measures of teachers' beliefs about the teaching process and measures of pupils' perceptions of style of classroom organization and pupil control.

It was expected that hypothesis 7 would be rejected and significant correlations established between teacher beliefs and pupil perceptions.

CHAPTER III

Experimental Design and Statistical Procedures

General description

In order to test the hypotheses, a study was planned which would involve a sample of supervisors, teachers, and pupils at the Grades 5 and 6 levels in the Edmonton Catholic School System. Data was required concerning authoritarianism in teacher personality, in teacher beliefs about the teaching process, and in the teachers' style of classroom organization and pupil control. Personality and belief measures were obtained from the teachers. Perceptions regarding the teachers' style of classroom organization and pupil control were gathered from the supervisors, from the teachers themselves, and from their pupils. Relationships between the three main areas (personality, beliefs about the teaching process, and style of classroom organization and pupil control) were studied. Relationships between the three sources of information regarding the teachers' classroom behavior (supervisors' opinions, teachers' self-ratings, and pupils' perceptions) were analysed. Finally, inferences were drawn regarding the implicit curriculum, based upon the relationships, emphases, and discrepancies present in these data.

As a first step, a pilot study was conducted to obtain information regarding timing, willingness to

participate, and reactions to instruments. Teachers in three classes at the Grades 5 and 6 levels were asked to review a Teacher Questionnaire compiled by the experimenter to obtain measures on personality and beliefs. An initial form of a Pupil Survey, designed by the experimenter, was administered to 90 pupils in these classes. The 3 teachers were also asked to complete the same survey, rating themselves on the same 5-point scale. Both pupils and teachers were asked to indicate items which they considered unclear. The pupil responses to the survey were factor analysed and items which failed to load on any factor were eliminated. As a result of the pilot study, 10 items out of 50 were discarded and 5 others were re-worded.

Following the pilot study, opinions of three supervisors were obtained regarding the style of classroom organization and pupil control for each teacher participating in the study. Questionnaires were administered to the 30 teachers in the sample to obtain measures of personality and beliefs about the teaching process, as well as self-ratings regarding style of classroom organization and pupil control. Measures of pupil perception of the style of classroom organization and pupil control were obtained from samples of pupils selected from the classes of participating teachers. The

pupil perceptions were factor analysed, and analysis of variance carried out. Correlational studies were conducted on the data. Inferences were drawn from the analysis concerning the implicit curriculum of the classrooms in the sample.

Subjects

A population of six schools from the Edmonton Catholic School System was chosen in consultation with the directors of two departments of the Central Administration of the E.C.S.S. Selection of schools was made on the basis of socio-economic status of the children in attendance: three inner-city schools with children from low socio-economic backgrounds, and three suburban schools with children from middle and upper-middle socio-economic backgrounds were chosen.

Three supervisors were selected from subject areas which bring them into frequent and direct contact with the classroom teachers in these schools.

Supervisors' opinions regarding the style of classroom organization and pupil control were obtained on 30 of the 38 Grades 5 and 6 teachers within the selected schools. These 30 teachers and a group of pupils from their classes formed the sample for the study. Ten pupils (5 boys and 5 girls) were selected randomly from each of the classes to give a representative view of the pupils' perceptions of how rules are made, changed,

and enforced in each classroom as a measure of the teachers' style of classroom organization and pupil control.

By the time the teacher data was gathered, two teachers had been replaced. During the gathering of the data, one teacher was not available due to illness, one declined participation in the teacher questionnaire, and one teacher answered both the Pupil Survey and the Teacher Questionnaire in a random fashion. While the original 30 class samples were retained for purposes of factor analysis, this brought the number of teachers participating to 27, with supervisors' opinions on 25 of these (see Table 1). Mean ratings of supervisors' opinions were used for the other two teachers.

TABLE 1

Teacher Sample by Sex and Grade

	Male	Female	Totals
Grade 5	5	10	15
Grade 6	6	6	12
Totals	11	16	27

Materials

Instruments were required which would provide measures of the degree of authoritarianism in:

a) teachers' personality;
b) teachers' beliefs about the teaching process;
c) teachers' style of classroom organization and pupil control as perceived by supervisors, the teachers themselves, and the pupils.

Since no instruments were available which would provide these measures, questionnaires were designed specifically for the study. The literature on authoritarian personality structure (see Figure 1) provided the rationale for and guided the selection of variables in designing these instruments.

The Teacher Questionnaire was constructed of scales from previously validated instruments which measured variables related to the dimensions schematized in Figure 1. A number of instruments related to authoritarianism in teachers were examined (Adorno et al., 1950; Cattell and Eber, 1957; Cook, Leeds, and Callis, 1951; Gough, 1957; Guilford and Zimmerman, 1949; Jackson 1967; Rokeach, 1960; Shostrom, 1962; Wehling and Charters, 1969). From these, eight scales measuring personality variables related to authoritarianism were selected. These included four scales from the Personal Orientation Inventory (Shostrom, 1962), namely:

Existentiality: defined as the ability to react situationally without rigid adherence to principles.

Spontaneity: defined as the freedom to react spontaneously, to be one's self.

Nature of Man: measuring constructive view of the nature of man; sees man as essentially trustworthy, rather than in need of constant control.

Synergy: defined as the ability to transcend dichotomies, to see interrelationships, to synthesize.

Reliabilities for the sub-scales of the Personality orientation Inventory are reported as beyond .90 (Shostrom, 1962).

Four additional personality scales were included:

Cognitive Structure (Jackson, 1967): defined as that dimension of personality which manifests itself as a dislike for ambiguity or uncertainty, and a need for precise, literal information.

Politico-Economic Conservatism (Adorno et al., 1950): measuring support of conservative values and resistance to social change.

Flexibility (Cattell and Eber, 1957): indicating the degree of flexibility and adaptability of a person's thinking and social behavior, with low scorers tending to be seen as conventional and rigid.

Dogmatism (Rokeach, 1960): measures authoritarianism and intolerance, defined as belief in positive and negative authority, commitment to a cause, and intolerance toward the renegade and the disbeliever.

These first three scales were reported as having reliability coefficients of .78, .73, and .67.

Also included in the Teacher Questionnaire were four scales measuring dimensions of beliefs about the teaching process (Wehling and Charters, 1969) related to authoritarianism, namely:

> Student Autonomy versus Teacher Direction: reflects the teacher's conception of the appropriate locus of control over the classroom learning process as lying with the teacher or the students. A high score indicates emphasis upon student autonomy.
>
> Classroom Order: understood as the belief in a high degree of order and decorum in the classroom as providing the best conditions for learning.
>
> Consideration of Student Viewpoint: represents the teacher's acceptance of empathy as an instructional strategy.
>
> Integrative Learning: measures the teacher's belief in the need for the student to see relationships between the subjects at hand and their other learning experiences.

These first three scales were selected as measures of belief concerning view of group interaction, specificity of demands, and tolerance of ambiguity (see Figure 1). The last scale was included as it was considered to be related to the characteristic of rigid mental set associated with the authoritarian individual's propensity to isolate ideas and experiences into rigid categories. The reliabilities of these scales were considered adequate (Wehling and Charters, 1969; Janzen, et al., 1973).

The items from the four belief scales were randomized and combined to form Part A of the Teacher Questionnaire. The 5-point scale was retained, but the

response categories and scoring were reversed in order to establish uniformity between Parts A and C. Since the items on the four scales from the Personal Orientation Inventory consisted of matched pairs, these scales were randomized and combined to form Part B of the questionnaire. The four remaining personality scales were converted to 5-point scales, randomized and combined to form Part C. The entire Teacher Questionnaire comprised 180 items (see Appendices B and C).

The Supervisors' Opinionnaire was constructed on the basis of selection of four of the characteristics designated in Figure 1, which were most applicable to classroom situations. In order to procure a more favourable reaction from the supervisors, these variables were reflected as indicating non-authoritarianism or flexibility, with high score given for a lower degree of authoritarian characteristics. The four characteristics included:

> View of Group Interaction: measures view of power distribution in the classroom - participatory or hierarchical.
> A high scorer shares responsibility for classroom decisions (rules, assignments, etc.) with pupils.
>
> Flexibility: measures capacity to respond situationally.
> A high scorer readily adapts schedules, rules, assignments, etc., to situational demands.
>
> Tolerance of Ambiguity: measures capacity for individuated experience, uncertainty, dichotomy, pluralism.
> A high scorer is comfortable with open-ended and

unresolved questions, and accepting of pupils' opinions and viewpoints.

Openness to Change: measures capacity to question conventional values and ideas. A high scorer is open to new ideas and prepared to change previous ways of doing things.

Supervisors were asked to indicate where they would expect each teacher to be placed on a 5-point scale for each of the characteristics (see Appendix A).

Tests of inter-rater reliability using DESTØ5 resulted in correlations of .74, .82, and .92, respectively, for the three sets of supervisors' opinions. The actual scores ranged from 8 to 19 on a possible range of 4 to 20, with a mean rating of 13.21.

Prior to designing the Pupil Survey, the possibility of using an adaptation of the Sentence Completion Test from Minuchin et al.(1969) was considered, but ruled out as too open-ended. Several other pencil-and-paper instruments were examined (Cook and Leeds, 1947; Lins, 1946; Valdeman and Peck, 1963) but did not meet the specific needs of this study. Consequently it was necessary to develop an instrument for the purpose. The procedure for design was essentially deductive; the various defining characteristics of the authoritarian personality (see Figure 1) were scrutinized and statements of classroom behavior designed to operationalize these characteristics were constructed. Several items were adapted from those in the instruments examined for

suitability. Fifty items using a 5-point scale were developed, with the highest score (5) being given for alternate 1 (Always or almost always true), then in descending order through to the lowest score (1) for alternate 5 (Never or very rarely true). It was expected that these would identify seven variables related to Figure 1, namely: View of Group Interaction; Flexibility; Tolerance of Ambiguity; Rigid Mental Set; Specificity of Demands; Strict Control; and Openness to Change.

The initial testing of this instrument formed part of the pilot study. The revised instrument (see Appendix D) consisted of 40 items and continued to use a 5-point scale. Further factor analysis of the instrument was carried out during the actual study, as reported in Chapter IV. The Pupil Survey was also used as a self-rating scale for the teachers to measure their perception of their own style of classroom organization and pupil control.

Research Methodology

Each supervisor was given a list of the Grades 5 and 6 teachers in the sample schools and asked to complete the Supervisors' Opinionnaire (see Appendix A). Since each of the four characteristics included on the Supervisors' Opinionnaire reflected an aspect related to degree of authoritarian behavior, the four scores were totalled and used as a single measure to indicate the

degree of authoritarianism expected to be associated with the style of classroom organization and pupil control of each teacher. A high score represented greater flexibility (lower degree of authoritarianism) and a low score reflected greater rigidity (higher degree of authoritarianism) as regards supervisors' expectations of a teacher's classroom behavior.

Participating teachers completed the Teachers Questionnaire and the Pupil Survey (Appendix D), providing measures of personality and beliefs in the teaching process as well as self-ratings regarding their style of classroom organization and pupil control. Scores were computed on all 22 variables. Data concerning the sex of the teacher and the grade taught were also gathered.

The pupil Survey (see Appendix D) was administered to the 300 pupils from the 30 classrooms. Pupil perceptions (group means) were computed for each teacher on the 10 factored variables from the Pupil Survey.

Statistical procedures

The pupils' responses to the Pupil Survey were factor analysed. Intercorrelational matrices were obtained by assigning cardinal numbers to the response alternatives of the items and computing product-moment correlations between them. These data were analysed by the principal components method and rotated to an orthogonal solution (Varimax). Analysis of variance

(ANOV15) was conducted on pupil perceptions of their teachers in order to test the power of the instrument to discriminate between teachers as perceived by their pupils (Ferguson, 1966).

Group means were obtained on the personality scores, belief scores, teacher self-ratings, and supervisors' opinions using DESTØ7. A 35 X 35 correlation matrix (DESTØ2) was set up which included the following variables: Sex of teacher, Grade taught, 8 Teacher Personality variables, 4 Teacher Belief variables, Supervisors'Opinions, 10 teacher Self-Ratings, and 10 Pupil Perceptions in terms of means. Standard deviations of pupils' perceptions were also analysed for significance, but excluded from further study when nonsignificance was established.

In order to identify patterns of authoritarian-nonauthoritarian personality structure associated with patterns of beliefs about the teaching process and of classroom behavior, canonical correlations were established between a number of sets of variables using MULVØ4. Canonical correlations are useful for determining the degree of relationship that might exist between two sets of variables. The procedure weights the variables within each set to define a composite variable in one set that maximally correlates with a similarly defined composite variable in the other set. It is possible for several

canonical correlations to exist between a set of variables. Through this procedure, optimal weightings were determined for the different variables resulting in the best correlations possible between the two sets of variates being tested (Anderson, 1958; Tatsuoka, 1971). Canonical correlations were established between the following sets of variables:

Teacher Personality and Teacher Beliefs;
Teacher Personality and Supervisors'Opinions,Grade,Sex;
Teacher Personality and Teacher Self-Ratings;
Teacher Personality and Pupil Perceptions;
Teacher Beliefs and Supervisors'Opinions,Grade,Sex;
Teacher Beliefs and Teacher Self-Ratings;
Teacher Beliefs and Pupil Perceptions;

While not included in the hypotheses, contrasts and comparisons between the three sources of perceptions regarding the teachers' classroom behavior were considered to be of interest. Consequently, canonical correlations were also established between:

Supervisors'Opinions,Grade,Sex and Teacher Self-Ratings;
Teacher Self-Ratings and Pupil Perceptions;
Supervisors'Opinions,Grade,Sex and Pupil Perceptions;

The results of these statistical procedures are presented and analysed in Chapter IV.

CHAPTER IV

Analysis of the Data

Factor analysis of Pupil Survey

Factor analysis of the Pupil Survey resulted in 10 factors, with eigen values greater than unity, accounting for 48.43% of the total variance. These factors are given in Table 2.

TABLE 2

Factor Structure of Pupil Survey

(Items and highest loadings)

1 Consideration of Pupils' Rights

(% of Variance = 7.73; Eigen Value = 4.31)

Number	Loading	Item
35	.69	In our classroom you never get blamed for something unless you deserve it.
34	.61	Our teacher is pleased as long as we are trying to do our work well.
39	.53	If the rules in our classroom are unfair, our teacher is willing to change them.
10	.52	If our teacher makes a mistake he/she admits it to the class.
33	.49	If our teacher is wrong about something, he/she likes you to say so.
26	.43	Our teacher lets the students discuss different points of view.
40	.43	Our teacher accepts our ideas and opinions.

TABLE 2 (cont.)

1. Consideration of Pupils' Rights (cont.)

Number	Loading	Item
28	-.40	No matter how hard we try, our teacher is never satisfied.
24	.38	If we break something in our classroom we can explain how it happened.
19	-.38	In our classroom you get the blame whether you deserve it or not.

2. Encouragement of Pupil Autonomy

(% of Variance = 5.91; Eigen Value = 3.14)

5	.75	The pupils in our room help plan new projects.
6	.57	Our teacher likes us to suggest different ways of doing things.
2	.50	The students help to make the rules in our classroom.
4	.48	Our teacher is often pleased with our work.
26	.47	Our teacher lets the students discuss different points of view.
32	.47	Our teacher lets the children take charge of different tasks in our classroom.
40	.40	Our teacher accepts our ideas and opinions.

TABLE 2 (cont.)

3. Imposition of Teacher Authority

(% of Variance = 5.10; Eigen Value = 2.42)

Number	Loading	Item
17	.62	Doing what you are told is the most important thing in our classroom.
25	.57	Our teacher is certainly the "boss" in our classroom.
23	.51	Even if you think you're right you still have to take the teacher's answer in our classroom.
18	.43	We don't get away with anything in our classroom.

4. Imposition of Specific Demands

(% of Variance = 4.44; Eigen Value = 1.57)

3	-.69	We are allowed to chew gum in our classroom.
27	.68	Pupils who chew gum in our classroom get a punishment.
31	.40	When we want to leave the classroom we have to ask permission.

5. Flexibility

(% of Variance = 4.36; Eigen Value = 1.52)

21	.72	If our teacher blames someone for something they didn't do, he/she apologizes.
22	.56	Our teacher can look at things from the pupils' point of view.
20	.52	Our teacher will change an assignment if it's too hard.
30	-.40	Our teacher agrees with the principal no matter what happens.

TABLE 2 (cont.)

6. Strictness of Rule Enforcement

(% of Variance = 4.35; Eigen Value = 1.43)

Number	Loading	Item
13	.58	In our classroom we have very strict rules about personal appearance.
8	.49	The rules in our classroom are very strictly enforced.
12	.48	Our class decides upon the punishment when the class rules are broken.
30	.43	Our teacher agrees with the principal no matter what happens.
18	.35	We don't get away with anything in our classroom.

7. Resistance to Change

(% of Variance = 4.32; Eigen Value = 1.30)

38	.67	Our teacher always thinks he/she is right.
16	.55	Our teacher never changes his/her mind about anything.
28	.51	No matter how hard we try, our teacher is never satisfied.
19	.35	In our classroom you get the blame whether you deserve it or not.

8. Encouragement of Pupil Interaction

(% of Variance = 4.15; Eigen Value = 1.26)

29	.63	Our teacher encourages us to help one another with our work.
37	.58	Our teacher lets us talk to one another while we're doing our work.

TABLE 2 (cont.)

9. Rule Structure

(% of Variance = 4.05; Eigen Value = 1.20)

Number	Loading	Item
7	-.68	We have very few rules in our classroom.
1	.64	We have rules about nearly everything in our classroom.
8	.43	The rules in our classroom are very strictly enforced.

10. Demand for Conformity to Teacher Authority

(% of Variance = 3.91; Eigen Value = 1.17)

14	.75	Arguing with the teacher is never permitted in our classroom.
15	.55	We lose marks for untidy work in our classroom.
9	.40	If we don't do our homework we get a punishment.
2	-.36	The students help to make the rules in our classroom.

NOTE: Items 11 and 36 failed to load on any factor.

An analysis of variance of Pupil Perception scores resulted in significant differences on all variables with one exception (see Table 3). These results indicate that the groups of pupils found differences in their teachers on all the variables related to style of classroom organization and pupil control, with the exception of Variable 1, Consideration of Pupils' Rights.

Consequently, it was concluded that the Pupil Survey has the power to discriminate among teachers on its factored variables.

TABLE 3

Differences between

Pupils' Perceptions of Teachers

Variables	Means		Homogeneity of Variance
	F (df: 29,270)	p.	
Consideration of Pupils' Rights	1.09	NS	NS
Encouragement of Pupils' Autonomy	3.43	.001	.05
Imposition of Teacher Authority	2.06	.001	.01
Imposition of Specific Demands	6.89	.001	NS
Flexibility	1.67	.05	NS
Strictness of Rule Enforcement	2.53	.001	NS
Resistance to Change	1.87	.01	.01
Encouragement of Pupil Interaction	2.44	.001	NS
Rule Structure	3.09	.001	NS
Demand for Conformity to Teacher Authority	1.96	.01	NS

NS: not significant; $p. > .05$

Testing the hypotheses

The hypotheses to be tested are summarized in Table 4.

TABLE 4

Summary of Hypotheses

Hypothesis concerning personality and beliefs	
	hypothesis 1
Hypotheses concerning personality and classroom behavior	
	hypothesis 2 (supervisors' opinions)
	hypothesis 3 (teachers' self-ratings)
	hypothesis 4 (pupils' perceptions)
Hypotheses concerning beliefs and classroom behavior	
	hypothesis 5 (supervisors' opinions)
	hypothesis 6 (teachers' self-ratings)
	hypothesis 7 (pupils' perceptions)

Hypothesis concerning authoritarianism in teacher personality and beliefs about the teaching process

Hypothesis 1 stated that there are no significant correlations between measures of authoritarianism in teacher personality and measures of beliefs about the teaching process obtained on selected scales.

Canonical correlations between scores measuring Teacher Personality and Teacher Beliefs (see Table 5) indicated significant correlations between these sets of

TABLE 5

Canonical Correlations between Teacher Personality and Teacher Beliefs

Canonical Correlation 1: Roots 1 - 4
r = .902; χ^2 = 73.02; df = 32; p. = .005

Set A: Teacher Personality		Set B: Teacher Beliefs	
Existentiality:	.162	Stu.Aut.vs.T.Dir.:	.789 *
Spontaneity:	.059	Classroom Order:	-.434 *
Nature of Man:	.386 *	Consid. Stu. View.:	.178
Synergy:	.398 *	Integ. Learning:	.379
Cog. Structure:	.160		
P-E Conservatism:	-.635 *		
Flexibility:	.482 *		
Dogmatism:	.043		

Canonical Correlation 2: Roots 2 - 4
r = .785; χ^2 = 33.65; df = 21; p. = .05

Set A: Teacher Personality		Set B: Teacher Beliefs	
Existentiality:	-.520 *	Stu.Aut.vs.T.Dir.:	-.569 *
Spontaneity:	.055	Classroom Order:	.197
Nature of Man:	.366	Consid. Stu. View.:	.065
Synergy:	.437 *	Integ. Learning:	.796 *
Cog. Structure	-.057		
P-E Conservatism	-.073		
Flexibility:	.085		
Dogmatism:	.621 *		

* p. $<$ .05

variables. Canonical Correlation 1 demonstrated that teachers who scored low on Politico-Economic Conservatism and high on Flexibility, Synergy, and Nature of Man tended to score high on beliefs in Student Autonomy versus Teacher Direction and low on beliefs in Classroom Order. When these variables were optimally weighted, the two sets of variates correlated at .90, significant at the .005 level.

Canonical Correlation 2 indicated that teachers who scored high on Dogmatism and Synergy, and low on Existentiality, tended to score high in Integrative Learning, and low in Student Autonomy versus Teacher Direction. While the remaining variance accounted for by Canonical Correlation 2 was only 12% of the total variance, the pattern among the variates as shown in table 5 is noted for later comment.

The significant correlations obtained between measures of teacher personality and beliefs about the teaching process lead to the rejection of hypothesis 1.

First order correlations indicating significant correlations between individual scales measuring Teacher Personality variables and Teacher Beliefs are given in Table 6.

Testing of the hypothesis concerning authoritarianism in teacher personality indicated that teachers high or low in authoritarian personality characteristics had

TABLE 6

Teacher Personality and Teacher Beliefs

Correlation Matrix

	1 Stu.Auton. vs.T.Dir.	2 Classroom Order	3 Consid. Stu.View.	4 Integ. Learning
1. Ex	.433 *	-.400 *	.406 *	
2. Sp				
3. NaM	.464 **	-.392 *	.524 **	.593***
4. Sy	.386 *			.507 **
5. CS				
6. PEC	-.711 ***	.535 **		
7. Fl	.660 ***	-.714 ***		
8. Do	-663 ***	.484 **		

* p.< .05; ** p.< .01; *** p.< .001

CODE:

Teacher Personality

Ex Existentiality
Sp Spontaneity
NaM Nature of Man
Sy Synergy
CS Cognitive Structure
PEC Politico-Economic Conservatism
Fl Flexibility
Do Dogmatism

Teacher Beliefs

1. Student Autonomy versus Teacher Direction
2. Classroom Order
3. Consideration of Student Viewpoint
4. Integrative Learning

correspondingly high or low degrees of authoritarian beliefs about the teaching process.

Hypotheses concerning teacher personality and classroom behavior

Hypothesis 2 stated that there are no significant correlations between measures of authoritarianism in teacher personality and supervisors' opinions regarding degree of authoritarianism in teachers' style of classroom organization and pupil control as measured on a 5-point scale.

Canonical correlations calculated on Teacher Personality variables and Supervisors' Opinions, Grade, and Sex indicated significant correlations between the two sets of variates (see Table 7). Teachers who scored high on Spontaneity and Existentiality and low on Dogmatism and Cognitive Structure were rated as more flexible by the supervisors. Optimally weighted, these two sets of variables correlated at .91, significant at the .001 level, thus rejecting hypothesis 2.

First order correlations between scales measuring Teacher Personality and Supervisors' Opinions are given in Table 8.

TABLE 7

Canonical Correlation between Teacher Personality and Supervisors' Opinions, Grade, Sex

Canonical Correlation 1: Roots 1 - 3
r - .91; / - 51.83; df - 24; p. - .001

Set A: Teacher Personality		Set B: Sup.Opinions,Gd.,Sex	
Existentiality:	.486 *	Sup.Opinions:	.990 *
Spontaneity:	.542	Grade:	-.087
Nature of Man:	.281	Sex:	-.112
Synergy:	-.134		
Cog.Structure:	-.384 *		
P-E Conservatism:	.128		
Flexibility:	.278		
Dogmatism:	-.386 *		

* p. < .05

TABLE 8

Teacher Personality and Supervisors' Opinions

Correlation Matrix

	Supervisors' Opinions
Existentiality:	.331
Spontaneity:	.220
Nature of Man:	.507 **
Synergy:	.529 **
Cognitive Structure:	-.059
P-E Conservatism:	-.194
Flexibility:	.167
Dogmatism:	-.546 **

** p. < .01;

Hypothesis 3 stated that there are no significant correlations between measures of authoritarianism in teacher personality and teachers' self-ratings on style of classroom organization and pupil control.

While Canonical Correlation 1 for these sets of variates indicated that teachers who scored high on Existentiality and Flexibility and low in Dogmatism tended to score high on Encouragement of Pupil Interaction, these findings did not meet the statistical requirements for significance (see Table 9). Although first order correlations were found between a number of individual scales (see Table 10), nevertheless the canonical correlation between the two sets of variates did not give sufficient evidence for rejection of hypothesis 3.

Hypothesis 4 stated that there are no significant correlations between measures of authoritarianism in teacher personality and measures of pupils' perceptions of the teachers' style of classroom organization and pupil control.

Canonical Correlation 1 between degree of authoritarianism in Teacher Personality and Pupil Perceptions of their teachers' style of classroom organization and pupil control (see Table 11) indicated that teachers who scored high on Existentiality and low on Synergy and Politico-Economic Conservatism, tended to score low on Strict Rule Enforcement and Imposition of Specific

TABLE 9

Canonical Correlations between Teacher Personality and Teacher Self-Ratings

Canonical Correlation 1: Roots 1 - 8
r = .82; χ^2 = 70.96; df = 80; p. = N.S.

Set A: Teacher Personality		Set B: Teacher Self-Rating	
Existentiality:	.573 *	Consid. Pup. Rts.:	.359
Spontaneity:	-.113	Enc. Pup. Autonomy:	.069
Nature of Man:	.232	Imp. T. Authority:	-.338
Synergy:	.086	Imp. Spec.Demands:	-.377
Cog.Structure:	.143	Flexibility:	.154
P-E Conservatism:	.127	Strict Rule Enforc:	-.214
Flexibility:	.472 *	Resist. to Change:	-.325
Dogmatism:	-.582 *	Enc. Pup.Interact.:	.581 *
		Rule Structure:	-.136
		Dem.Conf. T. Auth.:	-.281

* p. < .05

TABLE 10

Teacher Personality and Teacher Self-Rating

Correlation Matrix ($p. < .05$)

	1. Ex	2. Sp	3. NaM	4. Sy	5. CS	6. PEC	7. Fl	8. Do
1. CPR				-.431				
2. EA	.586	.516	.385	.511				
3. ITA								
4. ISD						.405		
5. Fl			.402	.502				
6. SRE						.474		
7. RC			-.450	.398				
8. EPI	.500	.596	.565	.536				
9. RS	-.381					.397	-.400	
10. DC								.372

CODE:

Teacher Personality:

Ex	Existentiality
Sp	Spontaneity
NaM	Nature of Man
Sy	Synergy
CS	Cognitive Structure
PEC	Politico-Economic Conservatism
Fl	Flexibility
Do	Dogmatism

Teacher Self-Rating:

CPR	Consideration of Pupils' Rights
EA	Encouragement of Pupil Autonomy
ITA	Imposition of Teacher Authority
ISD	Imposition of Specific Demands
Fl	Flexibility
SRE	Strictness of Rule Enforcement
RC	Resistance to Change
EPI	Encouragement of Pupil Interaction
RS	Rule Structure
DC	Demand for Conformity to Teacher Authority

TABLE 11

Canonical Correlation between Teacher Personality and Pupil Perceptions

Canonical Correlation 1: Roots 1 - 8
$r = .85$; $\chi^2 = 81.094$; $df = 80$; $p. = NS$

Set A: Teacher Personality		Set B: Pupil Perceptions	
Existentiality	-.615 *	Consid. Pup. Rts.:	-.093
Spontaneity:	.119	Enc.Pup.Autonomy:	-.368
Nature of Man:	.085	Imp. T. Authority:	.080
Synergy:	.577 *	Imp. Spec.Demands:	.396 *
Cog. Structure:	.278	Flexibility:	-.483 *
P-E Conservatism:	.417 *	Strict.Rule Enforc:	.489 *
Flexibility:	.083	Resist. to Change:	-.141
Dogmatism	.096	Enc.Pup.Interact.:	-.258
		Rule Structure:	-.095
		Dem.Conf.T.Auth.:	.353

* $p. < .05$

Demands and high on Flexibility as measured by Pupils' Perceptions of the teachers' classroom behavior. Correlations between these sets of variates, however, were not significant. Hypothesis 4, therefore, was not rejected.

Tests of the three hypotheses concerning personality and classroom behavior indicated that teachers having high scores on authoritarian personality variables were rated by the supervisors as less flexible in their style of classroom organization and pupil control than teachers with nonauthoritarian personalities. No significant canonical correlations were found, however, between authoritarian personality variables and teachers' classroom behavior as measured by the teachers' self-ratings or by their pupils' perceptions.

Hypotheses concerning teacher beliefs and classroom behavior

Hypothesis 5 stated that there are no significant correlations between measures of teachers' beliefs about the teaching process and measures of supervisors' opinions regarding degree of authoritarianism in the teachers' style of classroom organization and pupil control.

Canonical Correlation 1 between authoritarianism in Teacher Beliefs and Supervisors' Opinions, Grade, Sex (see Table 12), indicated that teachers who scored high

TABLE 12

Canonical Correlation between Teacher Beliefs and Supervisors' Opinions, Grade, Sex

Canonical Correlation 1: Roots 1 - 3
r = .61; χ^2 = 15.89; df = 12; p. = N.S.

Set A: Teacher Beliefs		Set B: Sup.Opinion, Gr., Sex	
Stu.Aut.vs.T.Dir.:	.883 *	Sup. Opinions:	.859 *
Classroom Order:	-.318	Grade:	-.255
Consid. Stu. View.:	-.054	Sex:	-.443 *
Integ. Learning:	.268		

* p.< .05

in beliefs about Student Autonomy versus Teacher Direction also tended to be rated as highly flexible by supervisors. However, the correlation between these two sets of variates was not significant. Hence hypothesis 5 was not rejected.

First order correlations between variables measuring Teacher Beliefs and Supervisors' Opinions are given in Table 13.

Hypothesis 6 stated that there are no significant correlations between measures of teachers' beliefs about the teaching process and teachers' self-ratings on style of classroom organization and pupil control.

Canonical Correlation 1 between Teacher Beliefs related to authoritarianism and Teacher Self-Ratings on style of classroom control (see Table 14) indicated that teachers who scored low on belief in Consideration of Student Viewpoint and Student Autonomy versus Teacher Direction also tended to score low in self-ratings on Encouragement of Pupil Autonomy as a classroom practice. The correlation between these sets of variates, however, was not significant, and therefore insufficient for the rejection of hypothesis 6.

First order correlations between variables measuring Teacher Beliefs and the Teachers' Self-Ratings on classroom behavior are given in Table 15.

TABLE 13

Teacher Beliefs and Supervisors' Opinions

Correlation Matrix

	Supervisors' Opinions	
	r.	p.
Student Autonomy versus Teacher Direction:	.474	.01
Classroom Order:	-.364	.06
Consideration of Student Viewpoint:	.054	.79
Integrative Learning:	.349	.07

TABLE 14

Canonical Correlation between Teacher Beliefs and

Teacher Self-Ratings

Canonical Correlation 1: Roots 1 - 4
r = .75; χ^2 = 46.026; df = 40; p. = NS

Set A: Teacher Beliefs		Set B: Teacher Self-Ratings	
Stu.Aut.vs.T.Dir.:	-.402 *	Consid.Pup.Rts.:	.246
Classroom Order:	.336	Enc.Pup.Autonomy:	-.749 *
Consid.Stu.View.:	-.842 *	Imp.T.Authority:	.380 *
Integ.Learning:	-.129	Imp.Spec.Demands:	.183
		Flexibility:	-.233
		Strict.R.Enforc.:	.182
		Resist.to Change:	.299
		Enc.Pup.Interact:	-.027
		Rule Structure:	.082
		Dem.Conf.T.Auth.:	.127

* p. $<$ .05

TABLE 15

Teacher Beliefs and Teacher Self-Ratings

Correlation Matrix

	1 Student Autonomy versus Teacher Direction	2 Class-room Order	3 Consid-eration of Student Viewpoint	4 Integrat-ive Learning
1. CPR				
2. EA	.390 *	-.394 *	.415 *	
3. ITA				
4. ISD	-.433 *			
5. Fl	.492 **			
6. SRE				
7. RC				.379 *
8. EPI			.486 **	
9. RS	-.449 *			
10. DC	-.403 *			

* $p. < .05$; ** $p. < .01$

CODE:

Teacher Self-Ratings

CPR Consideration of Pupils' Rights;
EA Encouragement of Pupil Autonomy;
ITA Imposition of Teacher Authority;
ISD Imposition of Specific Demands;
Fl Flexibility;
SRE Strictness of Rule Enforcement;
RC Resistance to Change;
EPI Encouragement of Pupil Interaction;
RS Rule Structure;
DC Demand for Conformity to T.Authority.

Hypothesis 7 stated that there are no significant correlations between measures of teachers' beliefs about the teaching process and measures of pupils' perceptions of style of classroom organization and pupil control.

Canonical Correlation 1 between Teacher Beliefs and Pupil Perceptions (see Table 16) indicated that teachers who scored low on belief in Classroom Order tended to score high on Consideration of Pupils' Rights and Encouragement of Pupil Interaction as perceived by the pupils. The correlation between the two sets of variates was not significant, however, and hypothesis 7 was not rejected.

Tests of the three hypotheses concerning teacher beliefs and their classroom behavior indicated that there were no significant canonical correlations between the teachers' beliefs about the teaching process and their style of classroom organization and pupil control as perceived by supervisors, by the teachers themselves, or by the pupils.

TABLE 16

Canonical Correlation between Teacher Beliefs and Pupil Perceptions

Canonical Correlation 1: Roots 1 - 4
$r = .72$; $\chi^2 = 40.85$; $df = 40$; $p. = N.S.$

Set A: Teacher Beliefs		Set B: Pupil Perceptions	
Stu.Aut.vs.T.Dir.:	-.204	Consid. Pup. Rts.:	.605 *
Classroom Order:	-.856 *	Enc. Pup. Autonomy:	-.275
Consid.Stu.View.:	-.298	Imp. T. Authority:	-.181
Integ. Learning:	.369	Imp. Spec. Demands:	-.166
		Flexibility:	-.165
		Strict Rule Enforc.:	-.284
		Resist. to Change:	-.243
		Enc.Pup.Interact.:	.418 *
		Rule Structure:	-.119
		Dem.Conf. T.Auth.:	.377

* $p. < .05$

Summary

A summary of conclusions drawn from the testing of hypotheses in the study is given in Table 17.

TABLE 17

Summary of Conclusions

Null Hypotheses	Conclusions
No correlation between	
1. personality and beliefs	rejected
No correlations between personality and classroom behavior as perceived by	
2. supervisors	rejected
3. teachers	not rejected
4. pupils	not rejected
No correlations between beliefs and classroom behavior as perceived by	
5. supervisors	not rejected
6. teachers	not rejected
7. pupils	not rejected

Results of the hypotheses tested indicate that authoritarianism in teacher personality is related to teacher beliefs about the teaching process, and that teachers with authoritarian personalities were perceived by supervisors as less flexible than teachers with nonauthoritarian personalities. No such overall relationship was perceived by the teachers themselves nor by their pupils, however. Teacher beliefs about the teaching process were not found to be related to

style of classroom organization and pupil control as perceived by the supervisors, the teachers themselves, or by the pupils.

Perceptions of teachers' classroom behavior: Contrasts and comparisons

While not tested as hypotheses, a number of interesting contrasts and comparisons may be noted in the way in which the supervisors, the teachers, and the pupils perceive the teachers' style of classroom organization and pupil control.

Supervisors and teachers. Canonical Correlation 1, established between Supervisors' Opinions, Grade, Sex, and Teacher Self-Ratings (see Table 18), indicated that teachers who were rated as nonauthoritarian by the supervisors tended to rate themselves high on Flexibility and low on Imposition of Specific Demands regarding their classroom behavior. Male teachers were rated less authoritarian by the supervisors, and tended to rate themselves higher on Flexibility and lower on Imposition of Specific Demands than the female teachers. The correlation between the two sets of variates, however, indicated no significant relationship between supervisors and teachers' perceptions of the teachers' style of classroom control.

Supervisors and pupils. Canonical Correlation 1 between Supervisors' Opinions, Grade, Sex, and Pupil

TABLE 18

Canonical Correlation between Supervisors' Opinions, Grade, Sex, and Teacher Self-Ratings

Canonical Correlation 1: Roots 1 - 3
$r = .88$; $\chi^2 = 39.99$; $df = 30$; $p. = .10$

Set A: Sup.Opinion, Gd., Sex		Set B: Teacher Self-Ratings	
Sup. Opinions:	.640 *	Consid. Pup. Rts. :	.336
Grade:	.064	Enc. Pup. Autonomy:	.002
Sex:	-.766 *	Imp.T.Authority:	-.250
		Imp.Spec. Demands:	-.496 *
		Flexibility:	.704 *
		Strict Rule Enforc:	.097
		Resist. to Change:	-.089
		Enc.Pup. Interact.:	.052
		Rule Structure:	-.073
		Dem.Conf.T. Author.:	-.238

* $p. < .05$

Perceptions (see Table 19), however, indicated that supervisors' and pupils' perceptions of the teachers' classroom behavior were significantly related. Optimally weighted, the two sets of variates correlated at .85, significant at the .01 level. Teachers who were rated as nonauthoritarian by the supervisors were rated low in Imposition of Specific Demands and Strictness of Rule Enforcement by the pupils. These descriptions applied particularly to male teachers, and to teachers of Grade 6 classes.

Teachers and pupils. A significant relationship was also found between the perceptions of teachers and pupils concerning the teachers' classroom behavior. Canonical Correlation 1 between Teacher Self-Ratings and Pupil Perceptions (see Table 20) indicated that teachers who rated themselves high on Imposition of Specific Demands were also scored high by the pupils on the same variable as well as on Strict Rule Enforcement. Optimally weighted, these two sets of variates correlate at .96, significant at the .005 level.

First order Correlations between Teacher Self-Ratings and Pupil Perceptions on the same variables are given in Table 21. These relationships will be commented upon in Chapter V.

TABLE19

Canonical Correlation between Supervisors' Opinions Grade, Sex, and Pupil Perceptions

Canonical Correlation 1: Roots 1 - 3
$r = .85$; $\chi^2 = 57.10$; $df = 30$; $p. = .01$

Set A: Sup.Opinions, Gd., Sex		Set B: Pupil Perceptions	
Sup.Opinions:	.790 *	Consid.Pup.Rts.:	.125
Grade:	.420 *	Enc.Pup.Autonomy:	.100
Sex:	-.464 *	Imp.T.Authority:	-.272
		Imp.Spec.Demands:	-.646 *
		Flexibility:	.046
		Strict.Rule Enfor:	-.528 *
		Resist.to Change:	-.335
		Enc.Pup.Interact:	.114
		Rule Structure:	-.114
		Dem.Conf.T.Auth.:	.254

* $p. < .05$

TABLE 20

Canonical Correlation between Teacher Self-Rating and Pupil Perceptions

Canonical Correlation 1: Roots 1 - 10
$r = .96$; $\chi^2 = 145.07$; $df = 110$; $p. = .005$

Set A: Teacher Self-Ratings		Set B: Pupil Perceptions	
Consid.Pup.Rts.:	-.209	Consid.Pup.Rts.:	-.296
Enc.Pup.Autonomy:	.239	Enc.Pup.Autonomy:	.169
Imp.T.Authority:	-.183	Imp.T.Authority:	.343
Imp.Spec.Demands:	.826 *	Imp.Spec.Demands:	.432 *
Flexibility:	-.241	Flexibility:	.177
Strict.Rule Enfor:	.174	Strict.Rule Enfor:	.617 *
Resist.to Change:	-.161	Resist.to Change:	-.153
Enc.Pup.Interact.:	-.033	Enc.Pup.Interact.:	-.046
Rule Structure:	.081	Rule Structure:	-.270
Dem.Conf.T.Auth.:	-.065	Dem.Conf.T.Auth.:	-.261

* $p. < .05$

TABLE 21

Teacher Self-Ratings and Pupil Perceptions:

Inter-correlations of Scores on Ten Variables

	Variable	Correlation
1.	Consideration of Pupils' Rights:	.027
2.	Encouragement of Pupil Autonomy:	.149
3.	Imposition of Teacher Authority:	-.259
4.	Imposition of Specific Demands:	.788 ***
5.	Flexibility:	-.192
6.	Strictness of Rule Enforcement:	.290
7.	Resistance to Change:	-.008
8.	Encouragement of Pupil Interaction:	.379 *
9.	Rule Structure:	-.154
10.	Demand for Conformity to Teacher Authority:	.449 **

* $p. \leq .05$; ** $p. < .01$; *** $p. < .001$.

Summary of perceptions of teachers' classroom behavior

Relationships between the supervisors', teachers', and pupils' perceptions of the teachers' style of classroom organization and pupil control are summarized in Table 22.

TABLE 22

Summary of Relationships between Perceptions

	p.
Supervisors' Opinions and Teachers Self-Ratings:	.10
Supervisors' Opinions and Pupils' Perceptions:	.01
Teachers' Self-Ratings and Pupils' Perceptions:	.005

Analysis of the relationships between the three sources of perceptions regarding the degree of authoritarianism in the teachers' classroom behavior indicated significant relationships between the perceptions of pupils' and those of both supervisors and teachers. Perceptions of supervisors and teachers were not found to be significantly related.

Results of the analysis of data will be discussed in Chapter V.

CHAPTER V

Discussion and Implications

Relationships between teacher personality, beliefs and classroom organization

Personality and beliefs. The theory of authoritarian personality structure presented by Maslow (1943), Adorno (1950), and Rokeach (1960) indicated that there are observable differences in beliefs and behaviors among individuals regarding degree of authoritarianism. This theoretical framework suggested that teachers who gave evidence of authoritarian personality characteristics would have different beliefs about the teaching process from teachers with nonauthoritarian personalities. The results of the study support this expectation (see Tables 5 and 6). Teachers whose questionnaire responses described them as flexible, synergistic, existential, and as having a constructive view of the nature of man, were found to have strong beliefs in student autonomy, consideration of student viewpoint, and the value of integrative learning. On the other hand, teachers who described themselves as conservative and dogmatic showed strong belief in teacher domination and classroom order, and correspondingly much less emphasis upon the students' point of view.

Personality and classroom organization. This same background theory suggested that teacher personality would have an influence upon the climate of the classroom.

Teachers having authoritarian personality characteristics would be expected to have a different style of classroom organization and pupil control from nonauthoritarian teachers. Results of the study showed that teachers with authoritarian personality characteristics were seen by the supervisors as less flexible in their classroom behavior than teachers with nonauthoritarian personalities (see Tables 7 and 8). While relationships between patterns of authoritarian personality structure and teachers' classroom behavior as perceived by the teachers and by the pupils (see Tables 9 and 11) were not significant at the .05 level, nevertheless there were a number of significant relationships between specific personality characteristics and particular classroom behaviors as perceived by the pupils and by the teachers themselves (see Table 10).

Where relationships between authoritarian personality characteristics and teacher classroom behavior occurred, these were appropriately logical. Teachers who described themselves as showing high degrees of flexibility, spontaneity, synergy, existentiality, and a constructive view of the nature of man, but low in dogmatism and conservativism as personality characteristics, tended to be rated as more flexible in the classroom, more encouraging of student independence and interaction, and more considerate of pupils' rights.

Conversely, teachers who showed high degrees of conservativism and dogmatism, and low degrees of the personality characteristics associated with nonauthoritarianism, tended to be resistant to change, and specific in their demands, imposing their authority and demanding conformity from their pupils (see Tables 7,8,9,10, and 11). It would seem that an implicit curriculum of conformity and submission could be inferred from perceptions of the classroom behavior of teachers having authoritarian personalities.

It is interesting to note that the relationships between many of the characteristics and behaviors related to authoritarianism change when they are examined as part of a pattern rather than combined individually. One is reminded of the stress placed by Maslow (1943), Adorno (1950), and Rokeach (1960) upon the authoritarian character structure rather than upon individual isolated traits. For example, when synergy and integrative learning occur as part of a pattern involving dogmatism, contrary to expectation teachers who described themselves as dogmatic also described themselves as synergistic and indicated a strong belief in integrative learning (see Table 5, Canonical Correlation 2). Variations of this pattern occur in other parts of the study as well. Teachers who described themselves as conservative also described themselves as synergistic, and were seen by

pupils as inflexible, high in strictness of rule enforcement, and specific in their demands (see Table 11). Similarly, synergistic teachers rated themselves as low in consideration of pupils' rights and resistant to change (see Table 10). Such a pattern suggests that persons who describe themselves as synergistic and who stress integration in their teaching, may actually have a high level of intolerance of ambiguity and a need to clear up all the loose ends, rather than a teaching style which provides children with the skills of synthesis and with genuine integration of their learning experiences.

Beliefs and classroom organization. The theoretical framework of the study also suggested that authoritarian teachers' beliefs about the teaching process would find expression in the climate of the classroom. The study investigated whether teachers having authoritarian beliefs about the teaching process would adopt a different style of classroom organization and pupil control from teachers having nonauthoritarian beliefs. Except for some isolated relationships between specific beliefs and classroom practices, there was no evidence that teachers' beliefs about the teaching process had any direct relationship to their style of classroom organization and pupil control as seen by the supervisors, the pupils, or the teachers themselves (see Tables 12, 13, 14, 15, and 16).

It would appear from these results that what teachers say they believe about the teaching process does not necessarily guide their classroom practice. This perhaps suggests that while teachers believe theoretically in such educationally fashionable ideals as student autonomy, consideration of student viewpoint, and integrative learning, nevertheless they do not have the skills for implementing these in the classroom. This may well indicate an implicit curriculum operating in the centers of teacher education or within the school system in general, which reinforces those teacher behaviors which encourage dependency and passivity in pupils.

Indications of an implicit curriculum

Indications of an implicit curriculum may be found in the relationships between the teachers' view of their own style of classroom organization and pupil control and pupils' view of the same reality (see Table 21). Results showed strong agreement between the teachers and pupils regarding the rules and regulations of the classroom, especially concerning specificity of demands, demand for conformity to teacher authority, and encouragement of pupil interaction. These results indicate that teachers and pupils alike have a very clear idea of what is expected concerning the imposition of and obedience to rules, as well as whether or not pupils interacting among themselves is encouraged or discouraged in the classroom.

The imposition of teacher authority, while not statistically significant, is nevertheless an interesting point, since the negative correlation indicated that teachers and pupils see this in a different light. While there is no way of knowing which way the original scores were directed, one suspects that pupils rated their teachers as being more imposing of teacher authority than did the teachers themselves. The other variable upon which there was some agreement, though not statistically significant ($p. = .14$), concerned strictness of rule enforcement. All other variables showed little or no correlation between teachers and pupils. One might well conclude that here an implicit curriculum is communicated. While teachers and pupils alike are not too clear regarding the emphasis upon consideration of pupils' rights, encouragement of pupil autonomy, degree of teacher flexibility and resistance to change, there is significant agreement about who is in charge and about what is expected of the pupils in terms of obedience to the rule structure of the classroom. Whether or not pupils may interact would appear to be related to this rule structure, rather than to concerns about pupils'rights and self-direction.

The variable which concerns consideration of pupils' rights also allows for interesting interpretation. While pupils saw significant differences between their teachers on all other variables, they failed to see

any distinction between their teachers in this area (see Table 3). This means that pupils did see differences between their teachers regarding such variables as encouragement of pupil autonomy and pupil interaction, resistance to change, imposition of and demand for conformity to teacher authority regarding specific behaviors, yet they saw all their teachers as equally considerate of pupils' rights. Such data suggests either that pupils see their teachers as equally inconsiderate of their rights, or, more likely, that the pupils see their teachers as equally considerate of their rights, because pupils understand their "rights" in whatever way the teachers define them, and accept the teachers' control of their rights as fair and just. In either case, an implicit curriculum is suggested which conveys the idea that pupils' rights are conferred by the teacher. The same tendency may be reflected in the fact that supervisors' ratings correlated with teachers' beliefs about student autonomy versus teacher direction (see Tables 12 and 13), but not with beliefs about consideration of students' viewpoint. Perhaps students' viewpoint is a subtle as well as fundamental right of pupils, the practical interpretation of which is governed by an implicit curriculum. It is at least a topic that is open for further research.

Implications concerning the instruments

A further area of discussion concerns the use of supervisors' opinions, teacher self-ratings, and pupil perceptions as sources of information for the study. While the administration of the instruments proved economical and while they did provide some information concerning areas of agreement and disagreement among the three groups, nevertheless the instruments, particularly the Pupil Survey, placed very real limitations upon the information obtained. Many of the measures proved too gross for accurate interpretation, and it became evident that either the instrument or the pupils themselves were unable to make the more subtle discriminations asked for, particularly regarding the referrants of differences clearly perceived among the teachers. The study suggests the need for refinement of the Pupil Survey in the direction of greater specificity before further use. Variable 4, for example, which consisted of highly specific, factual items such as chewing gum and leaving the classroom without permission, received the most consistently significant pupil responses, which suggests that pupils were apparently more able to cope with such factual items than with more subtle teacher behaviors such as those related to encouragement of pupil autonomy.

Limitations of the study

The interpretation of the study was subject to a number of limitations. Pupils' perceptions of the style of classroom organization and pupil control were measured without investigation of the origins of these perceptions, such as background, influence of previous teachers and school administrators, and peer-group pressure.

Moreover, supervisors' opinions, teachers' self-ratings, and pupils' perceptions of the style of classroom organization and pupil control were measured on instruments which gave evidence of validity (see page 40; also Tables 2 and 3), but which require further validation and refinement.

The study was preceded by only one pilot study, involving 3 teachers and 90 pupils in 1 school. The study was also limited to a small sample of pupils (300), of supervisors (3), and of teachers (27), to particular grade levels (Grades 5 and 6) in a small number of schools (6), and to a local situation.

Finally, the study was limited to inferring the presence and content of an implicit curriculum without directly investigating whether such a curriculum was recognized by the pupils, and whether its contents were affecting the pupils or being accepted by them.

Implications for further research

The limitations of the study point to areas requiring research in regard to the implicit curriculum. The development and refinement of instruments to observe and measure its contents and effects more directly are needed. This would make possible the investigation of the relationships between the implicit and the explicit curricula in order to prevent inconsistency between the two.

A specific area for further study is that of values education, since it is in this area that the need for consistency and the likelihood of inconsistency are the greatest. For example, does the teacher who communicates the values of personal responsibility at the explicit level, but who reinforces pupils for being dependent and passive, teach something quite different at the implicit level from what is being communicated explicitly? And, if so, does such inconsistency between the explicit and implicit levels of the curriculum create confusion in the minds of the pupils, resulting in an immature understanding of the nature of rules and of one's responsibility in regard to rules -- and hence in regard to law and to one's ethical and moral judgments and decisions?

Conclusion

While the present study did not yield conclusive evidence regarding the relationship between teacher

beliefs and teacher behavior, it nevertheless pointed to the importance of the teacher's personality in the structuring of the style of classroom organization and pupil control, and upon what is implicitly communicated through the rule structure of the classroom. Although the usefulness of teacher effectiveness research relating teacher personality to pupil academic achievement has been questioned (Flanders and Simon, 1969), the relationship of teacher personality to the implicit curriculum of the classroom remains largely unexplored. The findings of this study regarding the influence of teacher personality and the inferences drawn concerning the implicit curriculum make an initial contribution to this area, while raising questions for further investigation.

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APPENDIX A

Supervisors' Opinionnaire

The following is a list of Grades 5 and 6 teachers from schools in your area. I would appreciate your opinion as to where you would expect each teacher to come on a 5-point scale measuring the following characteristics related to style of classroom organization and pupil control.

Characteristics:

A. View of Group Interaction: measures view of power distribution in the classroom -- participatory or hierarchical.

   A high scorer shares responsibility for classroom decisions (rules, assignments, etc.) with pupils.

B. Flexibility: measures capacity to respond situationally.

   A high scorer readily adapts schedules, rules, assignments, etc., to situational demands.

C. Tolerance of Ambiguity: measures capacity for individuated experience, uncertainty, dichotomy, pluralism.

   A high scorer is comfortable with open-ended and unresolved questions, and accepting of pupils' opinions and viewpoints.

D. Openness to Change: measures capacity to question conventional values.

   A high scorer is open to new ideas, and prepared to change ways of doing things.

On the accompanying sheets, please give your opinion for each teacher on these four characteristics using the following scale:

5: Always or almost always true.
4: Frequently true.
3: True about half the time. OR Cannot decide.
2: Sometimes true.
1: Never or very rarely true.
0: Don't know.

APPENDIX B

DIVISION OF EDUCATIONAL RESEARCH SERVICES

University of Alberta

(with permission of the Edmonton Separate School Administration)

- Approximate time required to complete this questionnaire: 35 - 40 min.
- Best results come from moving quickly through the questions without devoting a great deal of consideration to any one item. Some questions are ambiguous; simply give the answer that seems best to you. The research depends upon the overall questionnaire, rather than upon answers to individual items.
- Please use HB pencil on your answer sheet. Be sure to make any alterations by erasing, rather than by crossing out.
- If you would like feedback on the Pupil Survey of your classroom, please sign your name on page 1 of the answer sheets. Otherwise the data remains anonymous.
- Thank you for completing the questionnaire and allowing the Pupil Survey to be administered. Your assistance in the research is greatly appreciated.

Frances MacDonald

TEACHER QUESTIONNAIRE B-1

PART A

INSTRUCTIONS: Indicate your reaction to each statement in Part A by selecting the response category which best describes your feelings about it, and then mark the appropriate number on the answer sheet.

Example: By marking alternative number A—1 for a given statement, you would indicate your strong support of that statement, and by marking alternative number E—5, you would indicate your strong resistance to it.

RESPONSE CATEGORIES

A—1: I would strongly support this statement.

B—2: I would support this statement.

C—3: Undecided.

D—4: I would resist this statement.

E—5: I would strongly resist this statement.

1. Pupils learn best when permitted to set their own pace in doing the work.
2. The pupil's impression of the teacher's personality greatly influences what he learns.
3. When given a choice of activity, pupils generally select what is best for them.
4. Pupils do their best work when they know exactly what to expect from day to day.
5. Students who misbehave or do not learn are generally children who need more love.
6. A firm hand by the teacher promotes emotional security for pupils.
7. Time to choose freely their own activity during the school day is a must for student morale.
8. In planning their work teachers should rely heavily upon the knowledge and skills pupils have acquired outside the classroom.
9. A well-established classroom routine enhances the emotional stability of pupils.
10. The basic function of education is fulfilled only when pupils are led to understand the general significance of the material they have learned.
11. Proper control of a class is amply demonstrated when pupils work quietly while the teacher is out of the room.

12. Pupils frequently learn much more under their own initiative than they do under teacher direction.

13. The use of sarcasm by the teacher can accomplish nothing but emotional harm for the pupil.

14. The deep interest which pupils sometimes develop in one subject can be valuable to them, but only if teachers succeed in broadening their perspective across subject matter boundaries.

15. Children learn best in an atmosphere filled with love and emotional support.

16. The teacher who organizes the material and presents it to pupils in a forceful way gets the best results.

17. The pupil's knowledge is best developed when teachers interrelate facts and figures from many different subject fields.

18. The teacher's ability to see the world as each of his students sees it is an absolute must if he is to have any success at all in teaching.

19. The effective teacher has complete control of the learning situation at all times.

20. The teacher must avoid strict adherence to the sequence provided by a textbook series.

21. There is too great an emphasis on keeping order in the classroom.

22. Pupils are motivated to do better work when they feel free to move around the room while the class is in session.

23. Pupils learn efficiently the essentials of a subject when every member of the class moves simultaneously through carefully planned lesson sequences.

24. Across-the-school routine imposes a consistency in classroom procedure which tends to resist important avenues for learning.

25. Children learn the necessary skills of group participation only when they are exposed to sequences of activity requiring increasingly difficult skills from kindergarten through grade twelve.

26. Children should be given more freedom in the classroom than they usually get.

27. Nothing captures students' interest in school work as quickly as allowing them to wrestle with problems of their own choosing.

28. Establishing the rules well in advance strengthens the teacher's hand in meeting the various problems that might arise.

29. The logical structure of subject matter is the most realistic guide to the organization of the work in the classroom.

30. If curriculum plans are to be developed, they must go into detail on how course content can be integrated across subjects.

31. Optimum learning takes place when the classroom setting is completely free of distraction.

32. Under ideal conditions pupils would view each teacher as a "specialist" in the subject taught.

33. The most important thing a teacher can do to set the stage for learning is to discover the interests of students.

34. Good rapport with pupils is maintained by the teacher who always finds time to help individuals with special problems.

35. Children need and should have more supervision and discipline than they usually get.

36. Pupils gain better understanding of the subject if assignments are presented to them as a series of interrelated problems.

37. A properly motivated group of mature students might learn more in a semester's time if they were left entirely to their own resources than if they had a teacher to guide them.

38. Pupils learn to stay alert when they are expected to respond immediately to teacher demands.

39. An essential component of a good lesson is showing how it is related to other areas of knowledge.

40. Pupils must be kept busy or they soon get into trouble.

41. Pupils never really understand a subject unless they can relate what they have learned to the broader problems of life.

42. Learning is enhanced when teachers generously praise the accomplishments of pupils.

43. In the interests of good discipline, pupils who repeatedly disrupt class must be severely punished.

44. Teachers must always be prepared to explain to pupils interrelationships among various elements of the overall curriculum.

45. Pupils must see clearly that it is the teacher, not they, who has charge of classroom learning.

46. A good teacher will establish a routine and stick to it.

47. The natural flow of events is enhanced by the teacher who manages to eliminate any disruptive pupil behaviour.

48. The effectiveness of teaching is enhanced when the teacher has the ability to see the world as each of his pupils sees it.

49. Teachers must set definite items aside to show pupils the relationships between their subject and the overall goal of education.

PART B

INSTRUCTIONS: Read each statement and decide which of the paired statements applies more consistently to you. Then mark the space on your answer sheet (A—1 or B—2) which corresponds to the number of the statement which is more applicable to you.

Example: By marking A—1 for a given statement, you would indicate that statement "a" applies more consistently to you. If statement "b" is more applicable, mark B—2.

In some of these items, neither statement may seem to apply fully to you. However, please do not omit an item, but rather select the statement that tends to be more applicable.

50.a. I can give without requiring the other person to appreciate what I give.

b. I have a right to expect the other person to appreciate what I give.

51.a. People have an instinct for evil.

b. People do not have an instinct for evil.

52.a. I can put off until tomorrow what I ought to do today.

b. I don't put off until tomorrow what I ought to do today.

53.a. "Killing time" is a problem for me.

b. "Killing time" is not a problem for me.

54.a. Men and women must be both yielding and assertive.

b. Men and women must not be both yielding and assertive.

55.a. I should always assume responsibility for other people's feelings.
b. I need not always assume responsibility for other people's feelings.

56.a. I feel that a person should be silly only at the right time and place.
b. I can be silly when I feel like it.

57.a. I am able to risk being myself.
b. I am not able to risk being myself.

58.a. I must justify my actions in the pursuit of my own interests.
b. I need not justify my actions in the pursuit of my own interests.

59.a. People are basically good.
b. People are not basically good.

60.a. I actively attempt to avoid embarrassment whenever I can.
b. I do not actively attempt to avoid embarrassment.

61.a. Two people will get along best if each concentrates on pleasing the other.
b. Two people can get along best if each person feels free to express himself.

62.a. I am concerned with self-improvement at all times.
b. I am not concerned with self-improvement at all times.

63.a. I do what others expect of me.
b. I feel free not to do what others expect of me.

64.a. I blame my parents for a lot of my troubles.
b. I do not blame my parents for my troubles.

65.a. I often make my decisions spontaneously.
b. I seldom make my decisions spontaneously.

66.a. I always play fair.

b. Sometimes I cheat a little.

67.a. I like only masculine men and feminine women.

b. I like men and women who show masculinity as well as femininity.

68.a. I often feel that I have a right to expect others to do what I want of them.

b. I do not feel that I have a right to expect others to do what I want of them.

69.a. I believe the pursuit of self-interest is opposed to interest in others.

b. I believe the pursuit of self-interest is not opposed to interest in others.

70.a. It is possible to live life in terms of what I want to do.

b. It is not possible to live life in terms of what I want to do.

71.a. I am orthodoxly religious.

b. I am not orthodoxly religious.

72.a. I will risk a friendship in order to say or do what I believe is right.

b. I will not risk a friendship just to say or do what is right.

73.a. Appearances are all-important.

b. Appearances are not terribly important.

74.a. I feel I must strive for perfection in everything I undertake.

b. I do not feel that I must strive for perfection in everything that I undertake.

75.a. I am bound by the principle of fairness.

b. I am not absolutely bound by the principle of fairness.

76.a. There are many times when it is more important to express feelings than to carefully evaluate the situation.

b. There are very few times when it is more important to express feelings than to carefully evaluate the situation.

77.a. Women should be trusting and yielding.

b. Women should not be trusting and yielding.

78.a. A person can completely change his essential nature.

b. A person can never change his essential nature.

79.a. Self-interest is natural.

b. Self-interest is unnatural.

80.a. People are both good and evil.

b. People are not both good and evil.

81.a. I live by the rules and standards of society.

b. I do not always live by the rules and standards of society.

82.a. I can express affection regardless of whether it is returned.

b. I cannot express affection unless I am sure it will be returned.

83.a. I see myself as others see me.

b. I do not see myself as others see me.

84.a. I can like people without having to approve of them.

b. I cannot like people unless I also approve of them.

85.a. I believe I have an innate capacity to cope with life.

b. I do not believe I have an innate capacity to cope with life.

86.a. I feel the need to be doing something significant all the time.

b. I do not feel the need to be doing something significant all the time.

87.a. I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss.

b. I have not had moments of intense happiness when I felt I was experiencing a kind of bliss.

88.a. I believe that man is essentially good and can be trusted.

b. I believe that man is essentially evil and cannot be trusted.

89.a. The truly spiritual man is sometimes sensual.

b. The truly spiritual man is never sensual.

90.a. I am afraid to be angry at those I love.

b. I feel free to be angry at those I love.

91.a. Honesty is always the best policy.

b. There are times when honesty is not the best policy.

92.a. Evil is the result of frustration in trying to be good.

b. Evil is an instrinsic part of human nature which fights good.

93.a. When a friend does me a favour, I feel I must return it.

b. When a friend does me a favour, I do not feel that I must return it.

94.a. I can "stick my neck out" in my relations with others.

b. I avoid "sticking my neck out" in my relations with others.

95.a. I feel I must always tell the truth.

b. I do not always tell the truth.

96.a. Being myself is helpful to others.

b. Just being myself is not helpful to others.

97.a. Impressing others is most important.

b. Expressing myself is most important.

98.a. I feel free to be myself and bear the consequences.
b. I do not feel free to be myself and bear the consequences.

99.a. I feel obligated when a stranger does me a favour.
b. I do not feel obligated when a stranger does me a favour.

100.a. I trust the decisions I make spontaneously.
b. I do not trust the decisions I make spontaneously.

101.a. For me, work and play are the same.
b. For me, work and play are opposites.

102.a. I feel bound to keep the promises I make.
b. I do not always feel bound to keep the promises I make.

103.a. I follow diligently the motto, "Don't waste your time."
b. I do not feel bound by the motto, "Don't waste your time."

104.a. For me, past, present, and future is in meaningful continuity.
b. For me, the present is an island, unrelated to the past and future.

105.a. I am bound by my duties and obligations to others.
b. I am not bound by my duties and obligations to others.

106.a. Man is naturally cooperative.
b. Man is naturally antagonistic.

107.a. Kindness and ruthlessness must be opposites.
b. Kindness and ruthlessness need not be opposites.

End of Page 1 of Answer Sheets.
Complete Part C on Page 2 of Answer Sheets.

PART C

INSTRUCTIONS: Mark each statement according to how much you agree or disagree with it.

Example: By marking alternative A—1 for a given statement, you would indicate your strong agreement with it; alternative number E—5 would indicate strong disagreement.

RESPONSE CATEGORIES

A—1: Strongly agree.

B—2: Agree somewhat.

C—3: Undecided.

D—4: Disagree somewhat.

E—5: Strongly disagree.

Complete Part C on Page 2 of the Answer Sheets, commencing with number 108 as marked.

108. I tend to start right in on a new task without spending much time thinking about the best way to proceed.

109. The trouble with many people is that they don't take things seriously enough.

110. It is hard for me to sympathize with someone who is always doubting and unsure about things.

111. I don't keep a very accurate account of my financial resources.

112. Before I ask a question, I figure out exactly what I know already and what it is I need to find out.

113. A group which tolerates too much difference of opinion among its own members cannot exist for long.

114. A person who gets enthusiastic about too many causes is likely to be a pretty wishy-washy sort of person.

115. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.

116. I never make judgments about people until I am sure of the facts.

117. I have no use for theories which are only good guesses and are not closely tied to facts.

118. A person who thinks primarily of his own happiness is beneath contempt.

119. Labour unions should become stronger by being politically active and by publishing newspapers to be read by the general public.

120. A child should learn early in life the value of a dollar and the importance of ambition, efficiency, and determination.

121. A man who does not believe in some great cause has not really lived.

122. Of all the different philosophies which exist in this world there is probably only one which is correct.

123. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

124. A strong person will be able to make up his mind even on the most difficult questions.

125. I live from day to day without trying to fit my activities into a pattern.

126. I often start things I never finish.

127. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

128. In the history of mankind there have probably been just a handful of really great thinkers.

129. I think I am more strict about right and wrong than most people.

130. It bothers me when something unexpected interrupts my daily routine.

131. Every adult should find time or money for some worthy service organization (charity, medical aid, etc.) as the best way of aiding his fellow man.

132. The only way to provide adequate medical care for the entire population is through some program of socialized medicine.

133. I don't enjoy confused conversations where people are unsure of what they mean to say.

134. My work is carefully planned and organized before it is begun.

135. When I take a vacation I like to go without detailed plans or time schedules.

136. In general, full economic security is harmful; most men wouldn't work if they didn't need the money for eating and living.

137. I sometimes have a tendency to be too critical of the ideas of others.

138. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

139. It upsets me to get into a situation without knowing what I can expect from it.

140. The best way to solve social problems is to stick close to the middle of the road, to move slowly and to avoid extremes.

141. To compromise with our political opponents is to be guilty of appeasement.

142. I always see to it that my work is carefully planned and organized.

143. I very seldom make detailed plans.

144. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

145. Once in a while I like to take a chance on something that isn't sure - such as gambling.

146. I like to have a place for everything and everything in its place.

147. I set a high standard for myself and I feel that others should do the same.

148. I find that a well-ordered mode of life with regular hours is congenial to my temperament.

149. I don't like things to be uncertain and unpredictable.

150. I don't answer a person's question until I am very clear as to what he is thinking.

151. I like the adventure of going into a new situation without knowing what might happen.

152. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

153. Each day I check the weather report so that I will know what to wear.

154. I am in favour of a very strict enforcement of all laws, no matter what the consequences.

155. Most of the arguments or quarrels I get into are over matters of principle.

156. There are two kinds of people in this world: those who are for the truth and those who are against it.

157. It doesn't bother me to put aside what I have been doing without finishing it.

158. My blood boils whenever a person stubbornly refuses to admit he's wrong.

159. I would never make anything without having a good idea of what the finished product should look like.

160. When I need one thing at the store I get it without thinking what else I may need soon.

161. Our thinking would be a lot better off if we just forgot about words like "probably", "approximately", and "perhaps".

162. People who seem unsure and uncertain about things make me feel uncomfortable.

163. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

164. I like to be with people who are unpredictable.

165. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

166. I often wish people would be more definite about things.

167. Whether one likes them or not, one has to admire men like Henry Ford or J.P.Morgan, who overcame all competition on the road to success.

168. There are a number of people I have come to hate because of the things they stand for.

169. A political candidate, to be worth voting for, must first and foremost have a good character, one that will fight inefficiency, graft, and vice.

170. Most of the ideas which get printed nowadays aren't worth the paper they're printed on.

171. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.

172. When I talk to a doctor, I want him to give me a detailed explanation of any illness I have.

173. The businessman, the manufacturer, the practical man - these are of much greater value to society than the intellectual, the artist, the theorist.

174. Character, honesty, and ability will tell in the long run; most people get pretty much what they deserve.

175. Depressions are like occasional headaches and stomach aches; it's natural for even the healthiest society to have them once in a while.

176. I am known as a hard and steady worker.

177. It is the responsibility of the entire society, through its government, to guarantee everyone adequate housing, income, and leisure.

178. Once I have my mind made up I seldom change it.

179. For most questions there is just one right answer, once a person is able to get all the facts.

180. I don't like situations that are uncertain.

APPENDIX C

Distribution of Items by Scales

PART A: Scales from Dimensions of Teacher Beliefs about the Teaching Process (Wehling and Charters, 1969)

NOTE: Choice of alternative 1 (strongly support) equals 5 points; alternative 5 (strongly resist) equals 1 point.

* indicates reverse scoring.

High score indicates strong belief in the dimensions as defined in the scale.

Some items appear in more than one scale.

Item numbers refer to Appendix B.

1. Student Autonomy versus Teacher Direction N = 23

Items

1, 3, *4, *6, 7, *9, 12,
*16, *19, 21, 22, 24, *25, 26,
27, *28, *31, *35, 37, *40, *43,
*45, *47,

2. Classroom Order N = 11

Items

*8, 11, 23, 28, 29, 31, 32,
38, 43, 46, 47.

3. Consideration of Student Viewpoint N = 8

Item

2, 5, 13, 15, 18, 34, 42,
48.

4. Integrative Learning N = 15

Item

2, 8, 10, 14, 17, 18, 20,
27, 30, 33, 36, 39, 41, 44,
49.

APPENDIX C (cont.)

PART B: Scales from Personal Orientation Inventory (Shostrom, 1962)

NOTE: Scored as in the original.

1. Existentiality N = 29

Items: 50, 52, 53, 55, 56, 62, 63, 66, 68, 69, 70, 71, 72, 73, 74, 75, 81, 86, 89, 91, 93, 95, 97, 99, 101, 102, 103, 105, 107.

2. Spontaneity N = 17

Items: 56, 57, 58, 60, 61, 64, 65, 75, 76, 82, 87, 90, 94, 96, 97, 98, 100.

3. Nature of Man N - 15

Items: 51, 54, 59, 67, 69, 77, 78, 79, 80, 83, 85, 88, 89, 92, 106.

4. Synergy N = 8

Items: 69, 80, 84, 89, 96, 101, 104, 107.

PART C:

NOTE: Scored as in PART A, except for scale 3 (Flexibility).

1. Cognitive Structure (Jackson, 1967) N = 20

Items: *108, *111, 112, 117, *125, 133, 134, *135 139, *143, *145, 150, *151, 153, *157, 159, *160, *164, 172, 180.

2. Politico-Economic Conservatism (Adorno et al, 1950) N - 13

Items: *119, 120, 131, *132, 136, 140, 165, 167, 169, 173, 174, 175, *177.

APPENDIX C (cont.)

PART C (cont.)

3. Flexibility (Cattell and Eber, 1957) N = 22

NOTE: All items in this scale are reverse scored (alternate 1 equals 1 point; alternate 5 equals 5 points), except item 126

Items: 109, 110, 115, 116, 124, 126, 129, 130, 142, 146, 147, 148, 149, 154, 155, 161, 162, 166, 171, 176, 178, 179.

4. Dogmatism (Rokeach, 1960) N = 18

Items: 113, 114, 118, 121, 122, 123, 127, 128, 137, 138, 141, 144, 152, 156, 158, 163, 168, 170.

PUPIL SURVEY APPENDIX D

Reply to each item using the following scale:

A—1: Always or almost always true.

B—2: Frequently true.

C—3: True about half the time. OR Cannot decide.

D—4: Sometimes true.

E—5: Never or very rarely true.

1. We have rules about nearly everything in our classroom.
2. The students help to make the rules in our classroom.
3. We are allowed to chew gum in our classroom.
4. Our teacher is often pleased with our work.
5. The pupils in our room help plan new projects.
6. Our teacher likes us to suggest different ways of doing things.
7. We have very few rules in our classroom.
8. The rules in our classroom are very strictly enforced.
9. If we don't do our homework we get a punishment.
10. If our teacher makes a mistake he/she admits it to the class.
11. Once a decision is made in our classroom, it isn't changed.
12. Our class decides upon the punishment when the class rules are broken.
13. In our classroom we have very strict rules about personal appearance.
14. Arguing with the teacher is never permitted in our classroom.
15. We lose marks for untidy work in our classroom.
16. Our teacher never changes his/her mind about anything.
17. Doing what you are told is the most important thing in our classroom.
18. We don't get away with anything in our classroom.
19. In our classroom you get the blame whether you deserve it or not.
20. Our teacher will change an assignment if it's too hard.
21. If our teacher blames someone for something they didn't do, he/she apologizes.
22. Our teacher can look at things from the pupils' point of view.
23. Even if you think you're right you still have to take the teacher's answer in our classroom.
24. If we break something in our classroom we can explain how it happened.

25. Our teacher is certainly the "boss" in our classroom.

26. Our teacher lets the students discuss different points of view.

27. Pupils who chew gum in our classroom get a punishment.

28. No matter how hard we try, our teacher is never satisfied.

29. Our teacher encourages us to help one another with our work.

30. Our teacher agrees with the principal no matter what happens.

31. When we want to leave the classroom we have to ask permission.

32. Our teacher lets the children take charge of different tasks in our classroom.

33. If our teacher is wrong about something, he/she likes you to say so.

34. Our teacher is pleased as long as we are trying to do our work well.

35. In our classroom you never get blamed for something unless you deserve it.

36. Even if you think the teacher is wrong, you would never say so in our classroom.

37. Our teacher lets us talk to one another while we're doing our work.

38. Our teacher always thinks he/she is right.

39. If the rules in our classroom are unfair, our teacher is willing to change them.

40. Our teacher accepts our ideas and opinions.

APPENDIX E

Teacher Personality

Correlation Matrix*

	1. Ex	2. Sp	3. NaM	4. Sy	5. CS	6. PEC	7. Fl	8. Do
1. Ex	1.00							
2. Sp	.546	1.00						
3. NaM	.560	.405	1.00					
4. Sy	.654		.748	1.00				
5. CS					1.00			
6. PEC					.617	1.00		
7. Fl	.428		.381		-.585	-.626	1.00	
8. Do						.415	-.551	1.00

Code: Ex. Existentiality
Sp Spontaneity
NaM Nature of Man
Sy Synergy
CS Cognitive Structure
PEC Politico-Economic Conservatism
Fl Flexibility
Do Dogmatism

* Only correlations significant at or beyond the .05 level have been included

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